Indian Institute of Foreign Trade

# SURVEY of INDIA'S EXPORT POTENTIAL of FRESH AND PROCESSED FRUITS AND VEGETABLES

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# SURVEY
# OF
# INDIA'S EXPORT POTENTIAL
# OF
# FRESH AND PROCESSED FRUITS AND VEGETABLES

prepared under the guidance of
THE EXPORT PROMOTION DIVISION,
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SURVEY REPORT

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COUNTRY REVIEW

ENGLAND
NORTH SEA
NETHERLANDS
CALAIS
ENGLISH CHANNEL
ROUBAIX
LILLE
BELGIUM
CHERBOURG
DIEPPE
LE HAVRE
LUXEMBURG
ROUEN
BREST
REIMS
GERMANY
PARIS
METZ
RENNES
LE MANS
NANCY
ST. NAZAIRE
ANGERS
TOURS
STRASBOURG
NANTES
MULHOUSE
BELFORT
DIJON
ATLANTIC OCEAN
LA ROCHELLE
SWITZERLAND
LIMOGES
CLERMONT-FERRAND
LYON
BORDEAUX
ST-ETIENNE
ITALY
AGEN
GRENOBLE
BAYONNE
TOULOUSE
MONTPELLIER
NICE
MARSEILLE
TOULON
PERPIGNAN
BAS
SPAIN
CALVI
CORTE
MEDITERRANEAN SEA
AJACCIO

## 5.1 FRANCE

### Background

France, with a population of 49 million and a per capita income of $ 2,060 per annum, represents the third largest market for fresh and processed fruits and vegetables in the Continent. She has been a net importer of these items, and during 1964-66 period the annual average import bill was reckoned at $ 496 million with an export receipt of $ 165 million.

Since 1958, France has been attempting to lessen the impact of this trade imbalance on the national economy by encouraging consumption of home grown fruits and by actively promoting French horticultural exports. As a result France has emerged, in recent years, as a net exporter of deciduous fruits to the West European markets.

With regard to tropical and sub-tropical fruits, France secures most of her requirements either from the Overseas Departments of French Antilles or imports them from the Associated territories of Africa under preferential trading arrangements. Market opportunities for the third countries therefore are quite limited.

### A. Fresh Fruits and Vegetables

### Market Size

Aggregate private consumer expenditure on fresh fruits and vegetables in France has been reckoned at FF 12 billion ($ 2.4 billion) in 1966, fruits accounting for $ 1.3 billion and the rest by vegetables.

Apparent Consumption of Fresh Fruits and Vegetables in France 1/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 2,783 | - | 15,191 | - |
| Imports | 1,568 | 312 | 813 | 148 |
| Exports | 287 | 62 | 652 | 44 |
| Apparent Consumption | 4,064 | - | 15,352 | - |
| Per Capita Consumption (kg) | 83 | - | 309 | - |

In terms of volume, apparent consumption of fresh horticultural produce in France has been estimated at 19.4 million tonnes per annum during 1964-66 period, of which 10.7 million tonnes were represented by potatoes, 4.3 million tonnes by other roots, tubers and bulbs and leafy vegetables, and 4 million tonnes by fruits. Domestic production met about 89% of the French market requirements amounting to 17 million tonnes while imports constituted only 11% representing 2.4 million tonnes. Total value of imports was of the order of $ 460 million during the corresponding period.

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1/ OECD Commodity Trade Statistics, Paris.

Production. Horticultural output occupies a significant position in the overall agricultural economy of France. INSEE (Institut National de Statistique, Economique et Econometrique) has estimated that during 1964 and 1965 value of fruits and vegetables production constituted $ 1 billion or 10% of the overall value of agricultural output reckoned at $ 9.2 billion and $ 10 billion, respectively. In terms of quality, average annual production has been placed at 18 million tonnes (1964-66).

Except for a small output of citrus fruits and melons, the entire French fruit production comprises mainly deciduous fruits. Apples, peaches, pears, cherries and strawberries are among the most important items of French fruit culture and potatoes followed by carrots, salads and leaks are significant in vegetable production.

Production of Fresh Fruits and Vegetables in France 2/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Fresh Fruits | | | |
| Apples | 1,039 | 1,214 | 1,240 |
| Peaches | 415 | 484 | 294 |
| Pears | 330 | 314 | 308 |
| Melons | 151 | 142 | 147 |

(Contd. next page)

2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-1.1, of the Report

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Cherries | 114 | 117 | 99 |
| Strawberries | 57 | 59 | 51 |
| Total (including others) | 2,528 | 2,910 | 2,910 |
| **Fresh Vegetables** | | | |
| Potatoes | 11,551 | 10,426 | 0,141 |
| Carrots | 578 | 582 | 553 |
| Tomatoes | 522 | 587 | 591 |
| Salad | 484 | 484 | 466 |
| Leaks | 415 | 442 | 442 |
| Peas | 346 | 309 | 324 |
| Cauliflowers | 376 | 361 | 293 |
| Beans | 245 | 237 | 230 |
| Onions | 216 | 195 | 197 |
| Total (including others) | 16,464 | 14,555 | 14,555 |
| Total | 18,992 | 17,465 | 17,465 |

French horticultural cultivation is not merely confined to the metropolitan country; output in the overseas Departments (French Antilles & Reunion) are equally significant, especially in the production of tropical and sub-tropical fruits. While French Antilles production includes a wide range of horticultural items, bananas and pineapples constitute the principal produce as given below:

(Next page)

Production of Fruits and Vegetables in the French Overseas Department 3/
(1965)

(Tonnes)

| | Martinique | Guadeloupe | Guyane | Reunion |
|---|---|---|---|---|
| Potatoes | - | 180 | - | 2,500 |
| Beans | 20 | 1,500 | - | 800 |
| Bananas | 220,000 | 162,000 | 2,600 | 7,000 |
| Ananas | 19,800 | 300 | 250 | 600 |

Imports. Despite abundant local production, France imports fresh fruits and vegetables in sizable quantities. During 1964-66 period, imports of fresh produce accounted for $ 460 million per annum or 20% of the total agricultural imports of $ 23 billion. More than 50% of these imports were accounted for by bananas and citrus fruits. Other important items were potatoes, tomatoes and onions.

Imports of Fresh Fruits and Vegetables into France 4/

Quantity: Thousand Tonnes
Value: Million Dollars

| | 1964 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Fresh Fruits** | | | | | | |
| Oranges, Tangerines, Mandarines | 681 | 88.5 | 666 | 101.2 | 735 | 97.4 |
| Bananas | 353 | 70.6 | 460 | 94.9 | 444 | 93.5 |

(Contd. next page)

3/ Statistique Agricole 1965, Ministere de l'Agriculture, 1966, Paris

4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-2.1 of the Report.

| | 1964 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Apples | 118 | 16.2 | 83 | 16.6 | 69 | 12.8 |
| Clementines | 83 | 25.1 | 92 | 28.1 | 98 | 31.4 |
| Citrons | 87 | 15.2 | 92 | 16.8 | 94 | 20.4 |
| Grapefruit | 34 | 5.7 | 41 | 7.5 | 47 | 9.5 |
| Pears | 33 | 6.9 | 59 | 11.1 | 57 | 10.1 |
| Total (including others) | 1,531 | 282 | 1,662 | 341.3 | 1,520 | 307 |
| **Fresh Vegetables** | | | | | | |
| Potatoes | 166 | 13.6 | 214 | 25.7 | 277 | 28.9 |
| Tomatoes | 160 | 43.3 | 156 | 49.2 | 189 | 53.4 |
| Onions | 66 | 5.3 | 70 | 6.5 | 81 | 9.5 |
| Artichokes | 41 | 8.7 | 40 | 8.7 | 42 | 10.3 |
| Lettuce | 18 | 8.9 | 13 | 6.3 | 20 | 7.3 |
| Total (including others) | 755 | 82.8 | 905 | 126 | 762 | 151 |
| Total | 2,286 | 364.0 | 2,507 | 467.3 | 2,282 | 458 |

During 1967, French banana imports amounted to 444,000 tonnes of which nearly 80% was supplied by Martinique, Guadeloupe and Ivory Coast. Other banana suppliers included Cameroons (45,696 tonnes), Madagascar (17,431 tonnes), Spain and Colombia (10,000 tonnes each) and Surinam (8,000 tonnes).

Banana imports are effected into France under a system of preferences which is mainly intended to provide protection to the banana industry in the French Antilles and preferential access to the exports of Francophone Countries and Territories. According to the preferential quota arrangements, two-thirds

of the French banana supplies are to originate from the French Antilles Departments and a little less than one-third from the Francophone countries of Africa. Small annual quotas are allocated to countries like Spain and Colombia, under special agreements, which are renewable every year.

Besides fiscal barriers, France has evolved comprehensive marketing arrangements covering all stages (from production in the case of the Overseas Departments, and from wholesale stage with respect to independent Francophone countries, to retail trade) with a view to closely linking up the banana growers and traders in the French market and to eliminate intense competition among the preferred suppliers. Union Bananiere Francaise (UNIBANA), founded by a group of growers and exporters in Martinique exclusively markets the bananas of French Antilles; bananas of Somalia and Ivory Coast are principally channelled by Organization Commiercile de la Production Bananiere (OCP) in Paris; the fruit from Malagasy is mainly handled by La Co-operative Fruitiere de Malagasy (COFRUMAD). As an apex body of these various marketing interests, there is Comite de La Banane in Paris which virtually looks after allocation of markets, fixing shares, undertaking publicity etc. The banana trade in France thus is a closely linked system in which French interests play a dominant role from production to the marketing stage.

As in the case of bananas, imports of citrus fruits also enter into the French market under the special trading arrangements with the exporting countries. France has extended duty-free entry for oranges of Algeria, Morocco and Tunisia. Further, Morocco and Tunisia enjoy a preferential

quota of 220,000 tonnes and 45,000 tonnes respectively. Imports from Israel are effected under the Special Associated Treaty Provisions of Israel-EEC Agreement. Imports from Spain, however, are treated as the third country imports. Imports from all sources fall within the purview of the EEC Minimum Reference Price System.

The main suppliers of oranges to France are the Maghreb countries of North Africa, Spain and Israel who together meet about 80% of the annual French demand. South Africa enters the French market only during the off-season period, that is from April to October. The following table indicates the shares of different suppliers to France during 1967:

Suppliers of Oranges to the French Market and their Respective Shares during 1967 5/

| Sources of Supply | (Tonnes) | Share in the Market % |
|---|---|---|
| Spain | 271,518 | 37 |
| Morocco | 218,694 | 30 |
| Algeria | 91,594 | 12 |
| South Africa | 51,093 | 7 |
| Tunisia | 42,998 | 6 |
| Israel | 26,361 | 4 |
| Total (including others) | 735,000 | 100 |

5/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-2.1 of the Report.

Supplies of limes and lemons mainly come from USA, Italy and Spain, each exporting about 25,000 tonnes to the French market. Taken together these three countries accounted for 80% of the total French imports of 94,103 tonnes during 1967. Israel, USA and Morocco are the important suppliers of grapefruit to France.

On the average, France annually imports about 150,000 tonnes of temperate fruits consisting mainly of apples, peaches and pears. Except for the limited quantities of apples imported from Argentina, all the deciduous fruits requirements of the French market are generally met by her EEC partners, especially Italy and Holland.

Among the vegetable imports significant items are potatoes, tomatoes, onions and artichokes. North African countries and Netherlands annually supply about 200,000 of early potatoes to the French market during the local off-season period, that is between January and May. Though Italy and Netherlands meet the major proportion of the French dried onion demand, during the off-season France imports on an average 25% of the annual onion requirements of 80,000 tonnes. The off-season supplies are generally met by UAR, Morocco, Tunisia and Spain. Artichokes are mainly imported from Italy.

Despite a large domestic production, France imports tomatoes to the tune of 160,000 tonnes per annum. Again Netherlands, North African countries and Canary Islands account for a major share of the market.

Exports. During the last three years, French exports of fresh fruits and vegetables averaged 939,000 tonnes, valued at $ 106 million. Main items of exports included potatoes, cauliflowers and asparagus in the vegetable crops and table apples, peaches, grapes and pears in the fruit group. Apples, in fact, accounted for nearly one-third of the total value of exports.

West Germany, Benelux countries, UK and Switzerland were the important customers of the French horticultural produce.

Exports of Fresh Fruits and Vegetables from France 6/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh Fruits | | | | | | |
| Apples | 45 | 8 | 166 | 25 | 245 | 36 |
| Table grapes | 29 | 5 | 52 | 10 | 45 | 10 |
| Pears | 14 | 2 | 24 | 3 | 30 | 6 |
| Total (including others) | 148 | 43 | 298 | 70 | 380 | 73 |
| Fresh Vegetables | | | | | | |
| Cauliflowers | 64 | 6 | 56 | 7 | 95 | 8 |
| Potatoes | 172 | 16 | 464 | 29 | 244 | 15 |
| Asparagus | 4 | 2 | 5 | 4 | 6 | 6 |
| Total (including others | 607 | 40 | 607 | 56 | 399 | 36 |
| Total | 755 | 83 | 905 | 126 | 779 | 109 |

6/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-3.1 of the Report

Development Plan

The French Government has been devoting special attention in its successive plans of economic development for expanded production of fruits and vegetables in view of its growing external trade imbalance. Of the various measures adopted to fulfil this objective, the creation of Compagnie Nationale D' Amenagement de la Region du Bas - Rhone et du Languedoc, a Government sponsored irrigation company in Nimes, remains an outstanding achievement.

The Company was formed in 1955 with the primary aim of harnessing the Rhone river and to develop the arid tracts of Languedoc and Rhone Regions by providing adequate irrigation facilities. When all planned barrages are completed, it is envisaged that the company would be bringing about 250,000 hectares under irrigation in the regions of Languedoc, Beziers and Narbonne.

During the past ten years, three barrages have been completed and the Languedoc region has been brought completely under the company's automatic irrigation system. Further, with the help of State-aided programmes in the fields of research, finance, extension and model demonstrations, the Company has succeeded in virtually transforming this area into one of the largest and most productive fruit and vegetable growing regions in Europe. Peaches, asparagus, pears and tomatoes are the predominant items cultivated in this region in place of traditional grapes and cauliflowers. Encouraged by the success achieved in the Languedoc area, the French Government has programmed in her Fifth Plan (1966-70), similar joint regional horticultural and irrigation development projects in Durance, Landes and Gascogne.

The Plan also envisages an expansion in fruit production from the present 2.8 to 5.5 million tonnes and in vegetables from 5 to 5.5 million tonnes by 1970, with exports correspondingly increasing from 280,000 tonnes to 700,000 tonnes in the case of fruits and 150,000 to 200,000 tonnes in respect of vegetables.

Import Policy and Regulations

In view of its various preferential commitments and Treaty arrangements, France follows a rigid policy of quotas, restrictions and licences with regard to fruits and vegetables imports. Within the purview of annual quotas, the Ministry allocates the extent of imports to originate from different sources. It would be essential to keep in touch with the concerned syndicates or the importers to know the quota allocations.

India has entered into a Trade Agreement with France, which inter alia provides a specific quota of 1,000 tonnes for onions. Though there is provision for exports of fruits and vegetables from India in the Trade Agreement, no specific quantities or commodities are however, indicated. For the non-EEC members like India the Community's Common External Tariff is applicable on imports effected into France.

Channels of Distribution

At the importers-wholesalers level, there are about 2,500 firms in France with 46% market share. They have private warehouses which are easily accessible and in which they stock and pack goods for delivery to retalers. They

are becoming increasingly important in the provinces and the Paris area and are reported to have a 15-20% share of the wholesale market.

Buying centres (centrales d'achat) play a dominant role in the wholesale market; PARIDOC is the best known with a turnover of $ 600 to 750 million supplying on a regular basis about 28 chain stores and 5,000 retail outlets. Voluntary chains grouping consisting of retailers and wholesalers, which now number about 220, are of considerable significance. Retailer associations such as UNA (Union National d' Achat) with a turnover of $ 140 million are important. Voluntary chains, buying centres and retailer associations have a 10-12% share of the wholesale market.

At the level of the growers, there are two main channels of distribution. On the one hand growers are forming co-operatives and SICAs (Societe d'Interet Collectif Agricole) through which they stock and dispatch their goods to wholesale markets and sometimes sell directly to retail outlets. They have a 15% share of the market at this stage of distribution and deal with easy-to-stock fruits and vegetables such as apples and potatoes. Distributors (expediteurs) on the other hand, who traditionally bought their goods from local markets in growing regions and sold them to wholesalers or large retailers in consuming areas, are now amalgamating and transacting business directly with the growers. Distributors particularly specialise in fragile goods, such as raspberries, and have 45% share of the fruit and a 75% share of the vegetable markets. In France there are approximately 1,500 distributors and 450 cooperatives and SICAs.

Traditional methods of distribution are still deep rooted on the retail side. There are over 37,500 independent small shops selling fruits and vegetables. Small independent retail outlets - both shops and market stalls - still have a 65-70% share of the retail trade. Supermarkets and chain stores are reported to account for between 30-35% of the market.

Grading and Packing

All imports of fruits and vegetables effected into France should conform to the EEC grade standards and packaging requirements. Grades, contents and net weight to the produce should be clearly indicated on the consignments. Phystosanitary regulations are rigidly implemented in the checking and control of the imported produce.

Sales Promotion

Fresh fruits and vegetables promotion in France is highly institutionalised. The French Government, in co-operation with the Fedration Nationale des Prodecteurs des Fruits et legumes, carries out generic publicity on TV and Radio on a continuous basis. Both traders and the Government share equally the financial expenditure incidental to such publicity. Traders' levy amounts to 1% of their total annual turnover.

Besides, the individual importers-wholesalers regularly advertise their ware in the professional journals, provide point-of-sale literature and display hoardings at convenient points. Weekly special bulletins on the discount sales of fruits and vegetables are commonly brought out by the department stores and super markets.

In the case of bananas, publicity is undertaken only by the Comite de la Banane on a collective basis. All the banana importers and wholesalers are members of this organisation and pay one Franc per thousand Francs of their annual turnover towards publicity and promotion.

For publicising the produce in the foreign markets, French Government in collaboration with CNCE (Centre National du Commerce Exterieur) has set-up a specialised institution called Societe Pour l'Expansion des Ventes des Produits Agricoles et Alimentaines (SOPEXA). Finance for this organisation is provided by the traders, professional bodies and the Government in the ratio of 3:1. The main types of publicity programmes carried out by SOPEXA include organising French Horticultural Weeks in various cities of Europe and USA, participating in fairs and exhibitions, assisting the exporters in formulating their publicity campaigns and undertaking generic publicity for the French horticultural produce. Mushrooms, tomatoes, cucumbers, peas (fresh and processed), grapes and wine, apricots, peaches and canned juices constitute the principal item taken up for intensive publicity in recent years. In 1966-67, a total amount of 200,000 was spent on publicity by SOPEXA.

(Contd.)

## B. Processed Fruits and Vegetables

### Market Size

Consumption of processed fruits and vegetables in France has been upward owing to rising personal incomes. Convenience foods have been in great demand, as would be evident from the following table:

Apparent Consumption of Processed Fruits and Vegetables 7/

( 1965-67 - average )

Quantity: Thousand Tonnes

Value: Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 270.0 | - | 595.0 | - |
| Imports | 103.0 | 29 | 18.0 | 7 |
| Exports | 57.4 | 23 | 63.3 | 20 |
| Apparent Consumption | 315.6 | - | 549.7 | - |
| Per Capita Consumption (kg) | 6.3 | - | 11.0 | - |

Consumption of processed fruits and vegetables is substantial, having averaged 865,300 tonnes during 1965-67 showing a per capita consumption of 17.3 kg. Processed vegetable consumption is much greater than fruits, being 549,700 tonnes as against 315,600 tonnes of fruit

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7/ i. Federation Nationale de Confitures et Conserveurs de Fruits, Paris

ii. Federation Nationale de la Conses Agricole, Paris

iii. Annuaire Statistique due Commerce Exterieur, Paris

preparations. Domestic production met 86% of the total processed fruit demand on the one hand and was far above vegetable consumption on the other. Despite high output, imports constitute an important segment of the market, having averaged 121,000 tonnes mainly comprising fruit preparations. France holds out very good prospects for pineapples, citrus juices and speciality products owing to the absence of local production.

Production. French processing industry is one of the largest in the whole of ECM, total number of canneries being 294 employing 12,000 people with an output of $ 216 million in 1964. While the number of canning units has not changed substantially, trade discussions indicated that the total turnover of the industry was of the order of about $ 225 million in 1967. In addition to a large number of local units, some of the internationally known fruit and vegetable companies have recently established large-scale plants in France, prominent among them being Colgate Palmolive Inc, New York; Libby McNeill, Libby, Chicago; Cerebos Ltd, London, and M. Basserman & Co, Schwetzuigen, West Germany. These organisations cover a major proportion of the manufacture of canned fruits and vegetables in France, having accounted for over 40% of the total output in 1965. While detailed statistics appear at Volume IV, Table A-1.1 of the Report, following table indicates the production of major items:

(Next page)

## Production of Processed Fruits in France[8/]

(Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Fruit Juices | 110,000 | 113,400 |
| Jams, Jellies & Marmalades | 79,341 | 76,235 |
| Chestnut Cream | 4,758 | 7,771 |
| Chestnut Puree | 902 | 1,497 |
| Whole Chestnuts | 1,050 | 1,177 |
| Chestnuts in Syrup | 32 | 59 |
| Fruit Puree | 5,242 | 7,416 |
| Fruit Pulp | 29,280 | 22,915 |
| Fruit in Syrup | 36,418 | 37,439 |
| Other Canned Fruits | 5,498 | 4,439 |
| Total | 272,521 | 272,348 |

Fruit juices constitute the single largest product, with 247 plants specialising in their manufacture in the country. France is one of the most prominent juice producing countries in the world aggregating 113,400 tonnes in 1966. The French canning industry is highly organised with most of the units having automatic operations. Products of French canneries, particularly juices, are reputed all over the world for their superior quality and consistency in production.

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8/ i) Federation Nationale de Confitures et Conserveurs de Fruits, Paris

ii) Federation Nationale de la Conseere Agricole, Paris

Exports. Considerable quantities of processed fruits and vegetables are exported to overseas markets, total exports having averaged 120,000 tonnes over 1965-67 period. Major items of exports include fruit peels, fruit juices and jams among fruits and peas, tomato products, mushrooms, french beans and vegetables in institutinal containers. Following table would indicate exports of the major products during 1964-67 period:

Exports of Processed Fruits and Vegetables 9/

(Thousand Tonnes)

| | 1964 | 1966 | 1967 |
|---|---|---|---|
| **Fruits** | | | |
| Grape Juice | 32.4 | 29.8 | 23.4 |
| Fruit Peels | 13.4 | 12.7 | 15.3 |
| Apple Juice | 4.3 | 11.3 | 9.5 |
| Jams and Marmalades | 2.0 | 2.5 | 2.8 |
| Tomato Juice | 1.9 | 6.4 | 4.6 |
| Total | 54.0 | 62.7 | 55.6 |
| **Vegetables** | | | |
| Peas | 8.0 | 33.4 | 28.7 |
| Mushrooms | 7.1 | 9.6 | 13.4 |
| Tomato Puree | 5.2 | 6.2 | 6.7 |
| Vegetables in bulk containers | 4.5 | 4.6 | 4.9 |
| French Beans | 4.2 | 24.7 | 7.9 |
| Mixed Vegetables | 1.4 | 2.3 | 2.7 |
| Total (including others) | 34.7 | 85.7 | 69.4 |

9/ Annuaire Statistique due Commerce Exterieur, Paris

It would be apparent from the above that fruit juices especially apple juice, grape juice and fruit peels comprise major items among fruit preparations whereas peas, mushrooms, french beans and tomato products are entering export markets in increasing quantities. Production and export trends of major processed fruits and vegetables in France are discussed below.

Canned Fruits. Total production of fruit preparations comprising mainly fruit purees and pulps, and fruits in syrup declined from 162,521 tonnes in 1965 to 159,229 tonnes in 1966 having indicated a marginal fall over the period. Jams, jellies and marmalades constitute the biggest items in this group, having accounted for 68% of the total output, the remainder being made up by the manufacture of fruits in syrup. French jams are known for their quality and consistency in taste, 64 processing units in France specialising in their production.

Substantial quantities of processed fruits comprising mainly fruits in syrup (40% in 1967) are exported to the foreign markets, having risen from 17,200 tonnes in 1964 to 22,700 tonnes in 1967. UK is the principal buyer accounting for approximately 50% of the total exports of processed fruits in 1967. USA has also been increasing its purchases from France, her imports having risen from 3,627 tonnes in 1964 to 4,397 tonnes in 1967. Small quantities of fruits are also supplied to Kenya and neighbouring European countries, though their share in the total trade has been minimal.

Among fruit preparations, jams and jellies are the only other items which command adequate sales in overseas markets. Exports of jams which rose from 1,988 tonnes in 1964 to 2,445 tonnes in 1966 and 2,764 tonnes in 1967 were mainly directed to West Germany, Italy and Algeria.

Fruit Juices. Fruit juices form a very important segment of the domestic canning industry of France, total production being 113,400 tonnes in 1966. Fruit juices are principally consumed in the country, their exports having remained stagnant around 45,000 tonnes over the period. It has been projected that the total production of fruit juice would be of the order of 150,000 tonnes by 1970. Trade predicts a very high growth in the consumption and production of fruit juices in the future years. Grape juice constitutes the most important item among juices produced in the country followed by apple juice, cider juice, mixed juices and tomato juice.

Among exports, grape juice is the major item followed by apple and tomato juice. While the total exports of grape juice had declined from 32,437 tonnes in 1964 to 23,430 tonnes in 1967, exports of apple and pear juices rose from 4,304 tonnes in 1964 to 9,525 tonnes in 1967. Likewise exports of tomato juice have also been increasing steadily, from 1,951 tonnes in 1964 to 4,638 tonnes in 1967. Apple and pear juices are mainly directed to West Germany, UK and USA, West Germany having accounted for 50% of the total exports in 1967, followed by UK 28% and USA 15%.

Processed Vegetables. Canned vegetables, ranking next to fruit juices, were manufactured to the extent of 617,100 tonnes in 1966 as against 550,000 tonnes in 1965. Growing consumption has led to the rapid development in the production base, as would be evident from the table given below:

Production of Processed Vegetables in France[10/]

(Thousand Tonnes)

| Item | 1965 | 1966 |
|---|---|---|
| Peas | 184.7 | 186.2 |
| Whole Beans | 109.6 | 138.1 |
| French Beans | 21.9 | 33.4 |
| Diced Vegetables | 25.9 | 23.2 |
| Flag Colete | 13.4 | 22.7 |
| Spinach | 12.8 | 13.4 |
| Mushrooms | 34.6 | 38.8 |
| Tomato Concentrates | 42.2 | 43.0 |
| Other tomato products | 17.5 | 19.0 |
| Cooked Beans | 9.8 | 12.7 |
| Total (including others) | 550.1 | 617.1 |

It is clear from the above that peas constitute the principal item among canned vegetables in France, having represented 30% of the total production in 1966. With the exception of diced vegetables, production of all other vegetables rose during the period, especially of whole beans, french beans and colete.

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10/ Federation Nationale de la Consesre Agricole, Paris

Processed vegetable exports comprise mainly tomato puree, asparagus and other vegetables in containers of 10 kg or more, reflecting industrial demand. While tomato puree exports rose from 7,100 tonnes to 13,400 tonnes, exports of asparagus declined from 189 tonnes to 45 tonnes between 1964 and 1967. Peas exports on the other hand have been steadily rising from 8,042 tonnes in 1964 to 28,664 tonnes in 1967. Major buyers of peas include West Germany, Belgium-Luxemburg, West Germany having bought 67% of total exports in 1967 as against 47% in 1964. Exports to Algeria declined from 24% in 1964 to negligible in 1967.

French beans rank as the second most important product; exports however have been fluctuating from 4,170 tonnes in 1965 to 24,732 tonnes in 1966 and 7,917 tonnes in 1967. West Germany bought 62% of the total exports of french beans in 1967 as against 55% in 1964. Exports of mixed vegetables comprising mainly mixed carrots and peas, though limited at present, are believed to have a very high growth potential in the French export trade.

It would thus be seen that processing of fruits and vegetables is undertaken on a very extensive scale in France, owing to the growing expansion of fresh vegetable crop and increasing domestic consumption. The French fruit and vegetable preparations are also gaining increased consumer acceptability among overseas consumers, as evidenced from the remarkable rise that has taken place in their exports during the recent past. Despite growing exports, dependence on exports is not considerable, exports having represented only 11% of total production

in 1966. The industry thus is principally oriented towards domestic market where the sale of processed items is very wide-spread. Lack of complete dependence on export outlets and existence of a strong domestic market, has resulted in the production of superior products at reasonable prices.

The Survey revealed that very healthy rapport exists between the canners and growers facilitating the continuous supply of quality fresh fruits and vegetables under contractual arrangements. Regular contracts are entered into between growers and the processors whereby the total supplies of fresh fruits and vegetables required by the industry are determined in advance. Prices of fresh produce to be paid to the growers are also decided before hand resulting in a regular flow of fresh fruits and vegetables to canneries at a predetermined price thus facilitating dynamic planning of production.

Most of the canning units are established in the growing areas so as to ensure quality of fresh produce required by the canneries. Canneries also give necessary assistance to the growers in terms of quality seeds, mechanical harvesting and technical expertise in the horticultural field. For instance, Libby, McNeill, Libby, who have a factory in Nimes, employ a team of horticultural experts who regularly visit the farms under contract to them for rendering technical assistance in the cultivation of suitable varieties for processing. Adequate work has been done for the production of right varieties of fruits

and vegetables as well as the improvement of soils etc. both by the Government and the canners.

The industry also enjoys certain concessions, based on EEC subsidies and tariff protections offered by member countries like West Germany which is one of the leading buyers of French products. Essential raw materials like sugar and cans are also available at relatively low prices. These factors have been at the back of systematic development of the industry, giving it a stable place in the French economy.

Imports

Processed Fruits. France is one of the important growth markets in Europe for imported products. Major items of processed fruits imported into France are presented below:

Imports of Processed Fruits[11/]

(Tonnes)

| | 1964 | 1966 | 1967 |
|---|---|---|---|
| Canned Fruits in Syrup in containers of one kg or more | | | |
| Pine apples | 1,399 | 2,025 | 1,831 |
| Other Fruits | 2,842 | 3,921 | 4,662 |

(Contd. next page)

11/ Annuaine Statistique Due Commerce Exterieur, Paris

| | 1964 | 1966 | 1967 |
|---|---|---|---|
| Canned Fruits in containers of less than one kg | | | |
| Pineapples | 17,633 | 21,221 | 20,184 |
| Peaches | - | 3,858 | 5,027 |
| Other Fruits | - | 6,213 | 8,202 |
| Canned Fruits in containers of 4-5 kg or more without sugar | | | |
| Apricots | 5,300 | 3,417 | 2,670 |
| Orange | 573 | 676 | 951 |
| Plums/Peaches | 344 | 468 | 752 |
| Other Fruit in containers of less than 5 kg container | 7,751 | 13,080 | 13,011 |
| Jams and Marmalades, citrus | 422 | 505 | 558 |
| Other Jams Sweetened | 7,010 | 5,994 | 6,475 |
| | 43,274 | 61,378 | 64,523 |

Pineapples. Pineapples, for which separate statistics are issued by the French Government, constitute the biggest item among imported canned fruits, imports in retail packs having risen from 17,633 tonnes to 20,184 tonnes during 1964-67. Some quantities of pineapples in bulk containers principally for the use of processors and catering establishments, were imported to the extent of 1,831 tonnes in 1967. Processed pineapples comprise

mainly retail packs of pineapple slices, tidbits and chunks.

Pineapples are mainly supplied by Ivory Coast, Martinique and USA, Ivory Coast being the market leader with 56% share, followed by Martinique 37%. Ivory Coast and Martinique being associate members of EEC enjoy preferential treatment in France, which explains to a large extent their hold over the market.

Though pineapple products from USA are reputed to be far superior than those of Ivory Coast and Martinique, the sale of American brands have not been substantial in view of their price disadvantage in the French market owing to the high cost of production in Hawaii as well as the tariff concessions enjoyed by the French colonies. Nevertheless, USA's share of the market has grown from negligible in 1963 to 16% in 1967.

Peaches. Imports of peaches are inconsiderable, having amounted to only 5,027 tonnes in 1967 as against 3,858 tonnes in 1964. They are mainly supplied by Greece, USA and Italy; Greek supplies represented 50% of the total imports in 1966.

Other Fruits. Other fruits including apricots, citrus segments, cherries, berries and strawberries in syrup were imported to the extent of 8,202 tonnes (retail packs) in 1967 as against 6,213 tonnes in 1966. Greece led the market in respect of these fruits with a share of 38% in 1967 as against 26% in 1964. USA and Morocco are the other suppliers of importance. In addition to retail

packs, these fruits are also imported in containers of more than one kg mainly for the use of processors and catering establishments. Here Morocco is the market leader followed by Tunisia making up for the remaining.

Fruit Juices. Despite large production considerable quantities of juices are also imported from different sources. Imports of fruit juices rose from 39,200 tonnes in 1964 to 51,600 tonnes in 1967. The table given below presents the imports of major fruit juices during 1964-67:

Imports of Fruit Juices[12/]

(Tonnes)

| | 1964 | 1966 | 1967 |
|---|---|---|---|
| Grape Juice | 15,746 | 31,169 | 11,031 |
| Orange Juice in containers of one litre or less, unsweetened | 219 | 1,160 | 3,859 |
| Sweetened orange juice in containers of one litre or less | 3,851 | 3,843 | 4,132 |
| Orange juice presented differently without sugar | 2,075 | 3,149 | 4,271 |

Contd....

12/ Annuaine Statistique Due Commerce Exterieur, Paris

| | 1964 | 1966 | 1967 |
|---|---|---|---|
| Orange juice presented differently with sugar | 625 | 772 | 1,164 |
| Lemon concentrated juice | 260 | 358 | 594 |
| Grape fruit juice in containers of one litre or less | 3,644 | 4,653 | 7,192 |
| Grapefruit juice presented differently | 2,560 | 3,947 | 5,961 |
| Pineapple juice in containers of one litre or less | 5,073 | 4,358 | 4,504 |
| Pineapple juice presented differently | 4,609 | 5,885 | 6,868 |
| Total (including others) | 39,208 | 60,838 | 51,606 |

The French market for fruit juices presents two different segments in respect of juice requirements; one for concentrated juices and the other for single strength juices. Unlike the other European markets, single strength juices constitute a more important item, having accounted for 89% of the total in 1967.

Grape juices, imports of which were 11,301 tonnes in 1967, were principally supplied by Algeria, Tunisia and Morocco, having together accounted for 60% of the total.

Orange juice is a large volume item among juices in France, total imports having amounted to 13,426 tonnes in 1967 as against 6,770 tonnes in 1964. Trade discussions indicated that over 70% of the imports account for single

strength juices. In respect of sweetened orange juice in containers of one litre or less, Morocco's share was 71%, followed by Algeria 35%. USA has also stepped up her exports of orange juice having catered to 22% of the market requirements in 1967. It was reported that imports from USA that comprise mainly pasteurised bottled orange juice from Florida. Israel filled in 15% share of the market in 1967 as against 12% in 1964.

The market for concentrated lemon juice has grown from 260 tonnes in 1964 to 594 tonnes in 1967, thus showing a remarkable growth. Supplies mainly emanated from Italy to the extent of 87% of total imports during 1967.

Grapefruit juice is imported both in concentrated and unconcentrated forms. While single strength juice was imported to the extent of 7,192 tonnes in 1967, concentrated juices amounted to 5,961 tonnes. Morocco was the market leader in respect of both the varieties of grapefruit juice, accounting for over 20% of the market in 1967, but in 1967 USA stepped in a big way by annexing 53% share. Israel had also increased her share from 11% in 1964 to 17% in 1967.

In addition to citrus and grape juice, some quantities of pineapple, apple, pear and other juices are also imported. While pineapple juice in retail

packs was imported to the extent of 4,504 tonnes in 1967 as against 5,073 tonnes in 1964, concentrated juice imports were around 6,868 tonnes in 1967 as against 4,609 tonnes in 1964. Ivory Coast had been the major supplier for these juices to French market. In respect of unconcentrated juices, USA improved its supplies from 137 tonnes in 1964 to 1,281 tonnes in 1967 mainly at the expense of Ivory Coast.

The French juice market is dominated by Morocco, Ivory Coast and Algeria on account of the preferential treatment accorded to them in the French market. Despite the tariff disadvantages suffered by USA and Israel, they have come up as the major suppliers of citrus juices during the recent past on account of the superior product they offer. Pasteurised orange juices from Florida and Jaffa orange juices have made a dent into the market and enjoy a definite brand following in the country.

The above review would show that the French market for single strength juices has a high growth potential, offering prospects for new entrants with competitive products in respect of price and quality.

Processed Vegetables. French imports of processed vegetables have been inconsiderable, averaging 18,000 tonnes over 1964-67. Total imports were around 20,000

tonnes in 1967 as against 13,000 tonnes in 1966, principal items being tomato products, green peas, beans, capers, pickles and chutneys. Following table gives the imports of major processed vegetables during 1964-67:

Imports of Processed Vegetables[13/]

(Tonnes)

| | 1964 | 1966 | 1967 |
|---|---|---|---|
| Tomato and tomato puree upto 30° dry weight | 12,267 | 4,041 | 10,140 |
| Tomato and puree otherwise put up | 2,229 | 2 | 1,228 |
| Asparagus in 10 kg containers | 1,331 | 1,483 | 1,225 |
| Sauerkraut in 10 kg containers | 169 | 173 | 139 |
| French Beans | 2,367 | 1,464 | 1,059 |
| Mecedine | 1,200 | 999 | 1,021 |
| Other Vegetables in 10 kg containers | 2,572 | 3,248 | 3,422 |
| Total (including others) | 22,622 | 12,840 | 19,907 |

With the sole exception of tomato puree, imports of other processed vegetables have been negligible. Tomato puree is mainly imported in dry weight ranging between

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13/ Annuaire Statisique Due Commerce Exterieur, Op.cit.

15 to 30% weight, other varieties being much less important. Principal suppliers include Morocco, Tunisia, Italy and Madagascar.

In view of the inadequate production in the country, some quantities of canned asparagus in large packs of 10 kg or more are imported for use by re-packers and catering establishments. Imports amounted to 1,225 tonnes in 1967 as against 1,331 tonnes in 1964. Spain leads the market with 76% share, followed by USA.

It would be seen from the above that over 60% of the total imports of processed vegetables are imported in bulk containers, thereby reflecting the industrial oriented nature of the French market. Discussions indicated that major proportion of processed vegetables is imported by the processors, packers and catering establishments. Prospects for the imports of processed vegetables in retail packs seem dim with the exception of speciality vegetables like pickles and chutneys and pickled vegetables.

Channels of Distribution

In tune with the retailing trends in neighbouring European countries, vertical organisations in France are gaining importance. More and more retailers have set up wholesale buying organisations for undertaking joint sales. Further the number of small stores is declining, as a result of amalgamations and mergers taking place in the country. The wholeselling funotion in respect of

food items is gradually being taken over by the wholesale buyer groups, who undertake joint purchases on behalf of their members. Following table would indicate the present position of retail merchandising in France along with projections for 1970.

Pattern of Merchandising in France[14/]

| | Percentage of Retail Turnover | |
|---|---|---|
| | 1962 | 1970 |
| Wholesalers' buying groups | | |
| Department stores and super markets | 5.95 | 8.90 |
| Multiple chain stores | 6.12 | 8.30 |
| Consumers Cooperative Associations | 2.24 | 3.30 |
| Retailers buying groups | 0.58 | 0.60 |
| Discount houses | 0.85 | 1.50 |
| Mail order houses | 0.61 | 1.50 |
| Association of Retailers | | |
| Voluntary Chains | 8.00 | 16.00 |
| Retailer's buying groups | 5.00 | 9.00 |
| Independent unaffiliated Stores | 70.65 | 50.90 |
| | 100 | 100 |

It would be indicated from the above that till 1962, independent retail stores not affiliated with any central buying groups or voluntary chain, held a prominent position, having accounted for 70% of the total turnover. The Survey revealed that the proportion of the independent stores has

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14/ Federation Nationale Des Syndicate Des Industries De L8 Alimentation, Paris

been declining over the years and is likely to represent 50% by 1970. The position of buying groups on the other hand is expected to improve to 24% in 1970 as against 16% in 1962. Likewise the association of retailers, who presently account for 13% of the total retail turnover are likely to be responsible for 25% of the total by 1970. It would thus be seen that by 1970, 50% of total retail turnover will be accounted for by buying groups and voluntary chains.

The principal voluntary chains controlling the major share of the French market in 1964 are listed below with their authorised capital and turnover during 1964:

Major Retail Organisations in France[15/]

(Thousand Dollars)

| Organisation | Authorised Capital | Net Capital | Cash Flow | Total Turnover |
|---|---|---|---|---|
| Printemps | 70,837 | 3,070 | 4,923 | 267,988 |
| Galeries Lafayette | 53,338 | 1,345 | 3,334 | 136,480 |
| Nouvelles Galeries Reunies | 48,721 | 3,402 | 9,879 | 234,609 |
| Bon Marche | 27,986 | 857 | 1,793 | 79,755 |
| Magasins Modernes | 26,061 | 13 | 4,518 | 79,165 |
| H.H.V. | 16,754 | 1,001 | 2,839 | 80,117 |
| Paris France | 15,928 | 1,236 | 1,862 | 131,776 |
| Docks Remois | 12,989 | 550 | - | 117,320 |
| Casino | 12,352 | 1,378 | 8,542 | 200,287 |
| Goulet et Cie | 5,668 | 332 | - | 61,873 |

(Contd. next page)

15/ Federation Nationale Des Syndicate Des Industries De L' Alimentation, Paris

| Organisation | Authorised Capital | Net Capital | Cash Flow | Total Turnover |
|---|---|---|---|---|
| La Redoute | 5,634 | 910 | 1,540 | 57,897 |
| Economats du Centre | 5,559 | 376 | 1,492 | 57,802 |
| Mielle Cailloux | 5,372 | 259 | 1,346 | 46,256 |
| Pomona | 4,255 | 748 | 1,767 | 87,277 |

It would be evident from the above that the establishment of powerful vertical organisation had led to concentration of buying power in a few pockets, enabling them to offer a wide coverage to a product. It has, therefore, been suggested that new entrants like India could advantageously enter into arrangements with one of these organisations for initial introduction of its products. Furthermore, these outlets commanding a major chunk of the market, are in a position to undertake intensive promotional effort including demonstrations, special displays and weekly special offers for selected products.

Import Policy and Regulations

France being a member of EEC, preferential treatment is accorded to the member countries in respect of imports of processed fruits and vegetables. In addition, France also offers adequate tariff concessions to North African countries, general import duties on the products emanating from these countries being 4%. Details of the tariff rates applicable to the imports of processed fruits and vegetables appear at Volume V, Chapter VIII(a), of the Report. Food and health regulations in relation to processed fruits and vegetables are given at Volume V, Chapter IV(a), of the Report.

DENMARK
NORTH SEA
BALTIC SEA
KIEL
LÜBECK
WILHELMSHAVEN
EMDEN
BREMERHAVEN
HAMBURG
BREMEN
POLAND
NETHERLANDS
WEST BERLIN
CELLE
HANNOVER
OSNABRÜCK
BRAUNSCHWEIG
EAST GERMANY
MÜNSTER
DUISBURG
RECKLINGHAUSEN
ESSEN
DORTMUND
WUPPERTAL
KREFELD
KASSEL
DÜSSELDORF
COLOGNE
AACHEN
BELGIUM
BONN
KOBLENZ
WIESBADEN
FRANKFURT
LUXEMBOURG
MAINZ
CZECHOSLOVAKIA
BAMBERG
TRIER
WÜRZBURG
MANNHEIM
SAARBRÜCKEN
HEIDELBERG
NÜRNBURG
KARLSRUHE
REGENSBURG
STUTTGART
FRANCE
ULM
AUGSBURG
PASSAU
MUNICH
FREIBURG
AUSTRIA
SWITZERLAND
ITALY

## 5.2 FEDERAL REPUBLIC OF GERMANY

Background

With an area of 248,500 square kilometers and a population of 57.2 million, West Germany has been registering a rising standard of living since the end of Second World War. According to the German Federal Bureau of Statistics, real consumption in West Germany shot up by 91% between 1950 and 1961 which exceeds the corresponding rise in the whole of Europe as well as the United States of America, during the same period. Another characteristic of the West German market relates to the spectacular increase in the monthly living expenditure of an average family, from DM 285 in 1960 to DM 850 in 1966.

With the rise in private family expenditure, the percentage of total expenditure on food is declining, falling from 46.4% in 1950 to 34.7% in 1963 reflecting the increasing availability of income for discretionary spending. In terms of absolute quantities, however, food consumption has been multiplying at a very high rate though in view of the considerable rise in income, the proportion on food consumption has been on the decline. Besides, a rise in the percentage of higher income families (DM 1,000 and above) has taken place from 4% in 1953 to 19% in 1962.

West Germany represents the largest market for fruit and vegetable items in Europe with an average annual trade of DM 4 billion (one billion dollars). It is the world's biggest importer of fresh fruits and vegetables, and in the processed items, it is second only to UK. In fact, it constitutes the focal point of European fruit and vegetable trade, as the demand and supply position obtaining in this country largely dictates the pricing and demand pattern in the other European countries.

Between 1960 and 1966, West German import trade in fresh & processed fruits and vegetables registered an annual growth rate of 8% per annum, increasing from DM 2.5 billion ($ 625 million) to DM 4.4 billion ($ 1,113 million). Whereas imports of fresh fruits and vegetables amounted to $ 919 million in 1966, those of processed items aggregated to $ 194 million. Growth rate of imports of fresh fruits and vegetables at 9% per annum was comparatively slower than that of processed items which has been registering an annual growth rate of 25% over the past six years. Exports, on the other hand, were negligible at $ 28 million during the same year.

## A. Fresh Fruits and Vegetables

### Market Size

West German apparent consumption of fresh fruits and vegetables may be estimated at 7.9 million tonnes between 1964 and 1966, of which fruits accounted for 5.3 million tonnes (67%) and vegetables, 2.6 million tonnes (33%).

Apparent Consumption of Fresh Fruits and Vegetables in West Germany 1/
(1964-66 average)

Qty: Thousand Tonnes
Val: Million Dollars

| | Fruits | | Vegetables (Excl. Potatoes) | | Potatoes | |
|---|---|---|---|---|---|---|
| | Qty | Val | Qty | Val | Qty | Val |
| Production | 2,409 | - | 1,112 | - | 16,152 | - |
| Imports | 2,933 | 398.1 | 1,542 | 244.2 | 605 | 36.9 |
| Exports | 14 | 2.6 | 14 | 15.6 | 23 | Neg. |
| Apparent Consumption | 5,328 | - | 2,640 | - | 16,734 | - |
| Apparent Consumption (per capita in kg) | 91.4 | | 46.1 | | 275.1 | |

1/ OECD Commodity Trade Statistics

Of the annual aggregate consumption of 7.9 million tonnes of fresh fruits and vegetables (excluding potatoes), 45% of the West German demand was met by domestic production and remaining 55% valued at $ 642 million, by imports. As regards potatoes, except for a small quantity of 605,000 tonnes per annum ($ 36.9 million) major proportion of the West German demand was met by domestic production. Thus the market for imported fresh produce (including potatoes) has been averaging at $ 679 million per annum during the past three years.

Production. West German horticultural production has remained almost unchanged during the past decade and area under horticultural crops has been constant at 141,000 hectares. The following table outlines production of selected fruits and vegetables during 1964 and 1966:

Production of Selected Fresh Fruits and Vegetables in West Germany 2/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Fresh Fruits | | | |
| Apples | 1,215.9 | 1,172.0 | 1,473.3 |
| Pears | 483.5 | 303.4 | 351.2 |
| Plums | 313.4 | 397.6 | 548.3 |
| Cherries | 266.5 | 157.0 | 167.0 |
| Strawberries | 18.5 | 21.1 | 24.6 |
| Total fresh fruits (including others) | 2,550.1 | 2,083.8 | 2,592.5 |

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2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, A-2, of the Report

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Fresh Vegetables | | | |
| Potatoes | 20,624 | 18,095 | 19,736 |
| Cabbages | 432 | 410 | 568 |
| Carrots | 148 | 131 | 161 |
| Beans | 89 | 60 | 91 |
| Cauliflowers | 82 | 70 | 88 |
| Peas | 66 | 67 | 78 |
| Total Fresh Vegetables (including others) | 21,936 | 19,138 | 21,016 |

The range of horticultural items producted in West Germany has not shown significant changes during the past decade. Apples, pears, plums, potatoes and cabbages continued to be significant. Statistical details relating to production of fruits and vegetables in West Germany are furnished in Volume III, A-1.2, of the Report.

Another significant feature of the West German horticulture is that crops are raised only during summer months (May to September) and in the remaining part of the year the land is left unutilised in view of the unfavourable climatic conditions. It has per force to depend upon imports for almost seven months in a year.

Imports. Imports of fresh fruit and vegetables have tended to increase both in quantity and value in recent years. As the following table indicates, between 1964 and 1966, imports of fresh produce increased from 5.0 million tonnes ($ 768 million)to 5.3 million tonnes ($ 919 million). Further, during the corresponding period imports of fresh temperate fruits accounted for 38.8% of the total value of fruit and vegetable imports, citrus and tropical fruits for 38.5% and fresh vegetables for 22.7%. Three-quarters of the total fresh fruit and vegetable imports are supplied by West Germany partners in the EEC and in particular by Italy and Netherlands.

## Imports of Selected Fresh Fruits and Vegetables into West Germany 3/

Qty: Thousand Tonnes
Val: Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Qty | Val | Qty | Val | Qty | Val |
| **Fresh Fruits** | | | | | | |
| Bananas | 487.4 | 61.3 | 585.3 | 81.4 | 606.5 | 84.1 |
| Oranges, Satsumas, Mandarins and Clementines | 852.5 | 125.6 | 832.0 | 140.2 | 822.0 | 135.9 |
| Citrus | 136.8 | 21.8 | 139.5 | 23.7 | 138.4 | 23.5 |
| Grapes | 234.0 | 44.1 | 258.4 | 49.9 | 244.3 | 46.3 |
| Apples | 529.1 | 73.7 | 667.0 | 112.0 | 584.8 | 99.0 |
| Pears | 182.9 | 27.9 | 147.5 | 31.4 | 205.6 | 30.0 |
| Total fresh fruits (incl others) | 2,878.0 | 512.0 | 3,117.0 | 627.0 | 3,067.0 | 598.0 |
| **Fresh Vegetables** | | | | | | |
| Tomatoes | 219.0 | 57.4 | 253.5 | 72.4 | 238.6 | 65.9 |
| Onions | 183.8 | 15.5 | 184.4 | 17.1 | 206.2 | 19.0 |
| Potatoes | 532.4 | 25.2 | 759.0 | 47.3 | 389.2 | 22.3 |
| Cauliflowers | 119.8 | 13.5 | 143.5 | 14.2 | 118.9 | 16.9 |
| Cucumbers | 133.0 | 26.1 | 144.1 | 31.9 | 187.3 | 37.2 |
| Total fresh vegetables (incl. others) | 2,190.0 | 256.0 | 2,433.0 | 328.0 | 2,223.0 | 321.0 |
| Total fresh fruits and vegetables | 5,068.0 | 768.0 | 5,550.0 | 955.0 | 5,290.0 | 919.0 |

Fresh fruits imports consist of many types of seed, stone and soft fruits of which dessert apples, table grapes peaches and dessert pears are by far important. Italy

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey countries, Volume III, A-2.2, of the Report

supplies about 50% of the West German apple imports followed by Netherlands, France and Hungary. During the off-season period for apples (April-June), imports mainly originate from the other hemisphere countries, especially Argentina, South Africa and Australia to the tune of 80,000 tonnes.

Italy, again, supplies about 65% of the total West German table grapes imports, followed by Spain (12%) and France (12%). Off-season imports amounting to about 10,000 tonnes are usually supplied by Spain, South Africa and Greece.

Oranges and bananas account for over 75% of the import volume of tropical fruits, lemons, mandarines and clementines and grape fruits comprising the other items.

Imports of oranges which were of the order of 822,000 tonnes valued at $ 135.9 million during 1966, mainly originated from Spain (60%), Israel 11.3% and Morocco (10.2%). Limited quantities were also imported from Brazil, South Africa, Cyprus and Algeria.

Banana imports which have shown a phenomenal increase during the past few years increased from 487,000 tonnes in 1964 to 606,000 tonnes ($ 84.1 million) in 1966. Ecuador was the main supplier of bananas with a share of over 50% and Colombia, next in importance, 25%. Honduras, Guatemala and Canary Islands were the other suppliers.

Tomatoes constitute the most important item of fresh vegetables imports, followed by cucumbers, potatoes, onions and cauliflowers. These four commodities were responsible for about 70% of the vegetable import bill during 1966, the remainder comprising a large number of other vegetables of which lettuce, asparagus, mushrooms, carrots, brussels sprouts were important. About 80% of fresh vegetable imports came from West German EEC partners, especially from Netherlands

and Italy. Other important suppliers included Spain, Bulgaria, Hungary, Poland, UAR and Morocco.

In relation to vegetable imports, it is essential to note that West German in-take of speciality vegetables like capsicums, aubergines, fresh french beans, carrots, etc., has increased during the past few years and in 1966 they were estimated at 91,150 tonnes.

Exports. As is evident from the following table, exports of fruits and vegetables from West Germany have very little significance as compared to imports. The value of exports has remained around $ 18 million during the past three years accounting for about one per cent of the total trade in fresh fruits and vegetables. Main items of export include seed potatoes, plums and cherries.

Exports of Selected Fruits and Vegetables from West Germany 4/

Quantity : Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Apples | 5.0 | 1.4 | 2.3 | 0.8 | 2.3 | 1.0 |
| Plums | 2.4 | 1.8 | 1.0 | 0.9 | 6.0 | 3.0 |
| Cherries | 1.1 | 1.3 | 0.7 | 1.0 | 1.4 | 1.7 |
| Seed Potatoes | 15.9 | 5.1 | 17.5 | 6.9 | 20.6 | 9.0 |
| Spinach | 1.4 | 0.3 | 3.0 | 0.6 | 3.6 | 0.6 |
| Total fresh fruits and vegetables (incldg. others) | 49.4 | 20.4 | 51.4 | 15.7 | 69.8 | 21.9 |

4/ Basic Statistics on Fresh Fruits and Vegetables of Survey countries, Volume III, Table A-3.2, of the Report.

Import Policy and Regulations

In accordance with the Common Agricultural Policy of the Community, West Germany discriminates in favour of the member countries and their associates in respect of fruit and vegetable imports. While member countries have free access to this market and face lower tariff rates, third countries are burdened with ECM minimum price policy system (import prices should always be higher than the prices prevailing in the member countries, in the absence of which countervailing duties will be imposed), higher common external tariff rates (usually 10% higher as compared to the member countries) licensing arrangements and quota restrictions. Despite such regulations, licences are granted liberally in West Germany and during the general off-season period (November-May) imports are mostly liberalised.

All imports made into West Germany must conform to the grade standards and packaging requirements as laid down by the Economic Commission for Europe. Details of these requirements are furnished in Volume V, Chapter I and II, of the Report. Common external tariff rates as applicable to non-ECM countries are also given in Volume V, Chapter VII, of the Report.

Channels of Distribution

West German fruit and vegetable trade is mainly concentrated in the hands of importers, wholesalers, retailers; cooperative buying associations and international voluntary chains and consumers' cooperative associations. Besides, there are a few speciality stores called Delicatessans, which import exotic fruits and vegetables directly. They mainly cater to a selected clientele of the society. List of major importers of fruits and vegetables in West Germany is provided in Volume VI, of the Report.

Of the various types of importing organisations, most important are co-operative buying associations and international voluntary chains which, in fact, account for about 30% of the total import trade of $ 919 million controlling 134,283 retail selling points in the country.

There are about 7,000 importers/wholesalers spread over the main urban centres of Hamburg, Munich, Frankfurt, Cologne, Dusseldorf, Dortmund, Stuttgart and Berlin. They constitute a highly organised group in West Germany and any country which desires to enter the market will be hard put to establish itself unless tied-up with one of the well-known importing firms. Business is transacted by these firms on consignment basis and their rates of margins range from 5% to 7%.

## B. Processed Fruits and Vegetables

### Market Size

Resulting from the high rise in income as well as increasing availability of large discretionary spending power, considerable increase in the absolute quantities of food consumption has taken place during the last decade in West Germany. The German Food and Vegetable Processors Organisation gives the following per capita consumption figures of different items of processed fruits and vegetables, which indicate the growing nature of the West German market for canned fruits:

(See next page)

Per Capita Consumption of Processed Fruits and Vegetables 5/

| Year | Processed Fruits | | Jams and Jellies | | Processed Vegetables | |
|---|---|---|---|---|---|---|
| | Gms | DM | Gms | DM | Gms | DM |
| 1950 | 23 | 0.23 | 346 | 0.55 | 1.045 | 0.82 |
| 1956 | 137 | 0.29 | 613 | 1.18 | 1.747 | 2.00 |
| 1961 | 577 | 1.06 | 371 | 0.84 | 1.870 | 3.00 |
| 1962 | 720 | 1.44 | 426 | 1.02 | 2.359 | 4.15 |
| 1963 | 743 | 1.46 | 426 | 0.97 | 2.464 | 4.58 |

It would be noticed from the above that between 1950 and 1963, the average per capita consumption of processed fruits per month rose from 23 gms to 743 gms, jams and jellies 346 gms to 426 gms and canned vegetables from 1.045 gms to 2.464 gms during the same period. Further statistics issued by the same organisation indicate that during 1966 consumption of processed fruits rose by 8% and marmalades by 7% over the preceding year.

The apparent consumption for processed fruits and vegetables has been worked out as follows for the years 1964-66:

(Next page)

5/ German Food and Vegetables Processors Organisation, Bonn

Apparent Consumption of Processed Fruits and Vegetables 6/

(Thousand onnes)

| Year | Pro-duc-tion | Imports | Ex-ports | Con-sump-tion | Pro-duc-tion | Imports | Ex-ports | Con-sump-tion |
|---|---|---|---|---|---|---|---|---|
| 1964 | 541.1 | 287.4 | 3.8 | 824.7 | 498.2 | 341.1 | 6.1 | 833.2 |
| 1965 | 453.3 | 359.8 | 3.4 | 809.7 | 536.6 | 407.8 | 5.1 | 939.3 |
| 1966 | 592.3 | 351.9 | 3.9 | 940.3 | 565.5 | 379.5 | 14.5 | 930.5 |

It would be seen from the above that the total consumption of processed fruits and vegetables has been rising steadily during the past three years, total consumption jumping from 1.65 million tonnes in 1964 to 1.87 million tonnes in 1966. This rising trend, has been mainly attributed to the rising incomes in West Germany. The rise in the case of vegetables was more pronounced than fruits, its consumption rising from 824,700 tonnes in 1964 to 940,300 tonnes in 1966.

Average annual consumption by major product groups for 1964-66 has been attempted below:

(Next page)

6/ Federal Bureau of German Statistics, Bonn

## Apparent Consumption By Product Groups

Qty: Thousand Tonnes
Val: Million Dollars

| | Vegetables | | Fruits (incldg. Jams) | | Fruit Juices | |
|---|---|---|---|---|---|---|
| | Qty | Val | Qty | Val | Qty | Val |
| Production | 528.9 | - | 288.3 | - | 245.1 | - |
| Imports | 217.5 | 77.4 | 252.3 | 65.4 | 115.8 | 28.8 |
| Exports | 3.7 | 3.5 | 2.4 | 1.6 | 9.7 | 3.0 |
| Apparent consumption | 742.7 | - | 538.2 | - | 351.2 | - |
| Per capita consumption (kg) | 13.0 | - | 9.4 | - | 6.1 | - |

Of the annual aggregate consumption of 1.6 million tonnes of processed fruits and vegetables, vegetables constituted 45-5%, fruits (including jams) 32.9% and fruit juices 21.6%. It is evident that domestic production met 71% each of processed vegetable and fruit juice consumption and 53.5% of processed fruit requirements of the country, indicating the extent of corresponding imports of the three product groups.

Production. The domestic production of processed fruits (including jams and juices) rose from 541,100 tonnes to 592,300 tonnes and processed vegetables from 498,200 tonnes to 565,500 tonnes between 1964-66. The industry has been registering a steady rise in production since 1960s and

the West German canning industry is the second largest industry in the whole of EEC. Production, as mentioned earlier, has been expanding steadily with the exception of 1964 when the output of processed vegetables in particular declined by about 20%. This was mainly attributable to the general crisis faced by the European canning industry as well as the fluctuations in the supplies of fresh vegetables in West Germany. Different types of peas, beans, mixed vegetables, mushrooms, carrots, spinach and cabbages constitute the major items manufactured presently in West Germany. With respect to fruits, strawberries, other berries, pears, fruit pulps, cherries, fruit juices (mainly grape juice), jams, jellies and marmalades are the major items of production in West Germany.

Exports. Most of the production, as would be evident from the table given above, is being consumed locally. Exports form a very insignificant proportion of the total output of the industry. It would be noticed, for instance, that between 1964 and 1966, the total exports of vegetables rose from 3,800 tonnes to 3,900 tonnes. Expansion in the exports of processed fruits, however, was m arkedly higher, rising from 6,100 tonnes in 1964 to 14,500 tonnes in 1966. Exports of fruits mainly comprise apple sauce, jellies and marmalades, grape juice and apple fruit preparations. Some quantities of soups particularly spiced and readymade varieties are also finding increasing sales abroad. Discussions with the West German canners indicated that owing to the increasing consumption of processed fruits and vegetables in the country, it is not profitable to undertake exports of these items in a big way. The returns from local sales are reported to be much higher than export returns, a factor which has been mainly responsible for the low growth in the exports of processed fruits and vegetables.

The Industry. The German Canning industry is very well organised with most of the units having automatic operations and using efficient techniques for the procurement of raw materials and production. The following table would indicate briefly the structure of the canned fruits and vegetables industry in West Germany in 1965:

Structure of Canned Fruits and Vegetables Industry 7/

| Number of Employees | Number of Canneries | Percentage to the total number |
|---|---|---|
| 10-19 | 106 | 27.8 |
| 20-49 | 146 | 38.2 |
| 550-99 | 61 | 16.0 |
| 100-199 | 46 | 12.0 |
| 200-499 | 20 | 5.2 |
| 500 and above | 3 | 0.8 |
| | 382 | 100.0 |

It would be seen from the above that the units employing between 20-49 people, account for 38.2% of the total canning units operating in West Germany. Units with more than 500 people were only 3 in 1965, which represented 0.8% of the total number of canneries in West Germany. It is further indicated that the units employing more than

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7/ Ibid.

100 employees were 69 in 1965, accounting for 18% of the total canning units in the country. The industry is mostly in the medium scale sector as more than 82% of the total canning units employed less than 100 people.

The table given below indicates the classification of the units on the basis of annual turnover:

Distribution of Canning Units by Turnover 8/

| | Total No. of Units | Percentage to total No. of Units | Total Turn-over Million $ | Percentage to total turnover |
|---|---|---|---|---|
| Under 1 Million DM | 121 | 31.7 | 17,647 | 4.8 |
| 1 to 2 " " | 91 | 23.8 | 33,339 | 9.1 |
| 2 to 5 " " | 94 | 24.6 | 73,880 | 20.2 |
| 5 to 10 " " | 38 | 9.9 | | |
| 10 to 25 " " | 31 | 8.1 | 105,472 | 28.8 |
| 25 to 50 " " | 6 | 1.6 | 26,643 | 14.1 |
| 50 to 100 " " | 1 | 0.3 | | |

It is indicated from the above that the largest number of units is in the bracket with a turnover of less than DM one million, ($ 250,000) accounting for 31.7% of the canneries operating in the country. Their total turnover,

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8/ Ibid.

however, accounted for a mere 4.8% of the entire turnover of the industry. The units with a turnover ranging between DM 10 million ($ 2.5 million) and 25 million ($ 6.2 million) representing 8.1% of the total units, accounted for 28.8% of the total turnover of the industry. It would thus be seen that over 40% of the total turnover is accounted for by 38 units in the whole industry, reflecting a trend towards concentration of production among a few units.

Imports. Detailed data on West German imports are given in the following paragraphs.

Processed Fruits. While discussing the total consumption of processed fruits in the country, it was seen that imports represented about 60.7% of the total consumption during 1966, as against 40.8% during 1964, reflecting a growing demand for the imported processed fruits in the West German market. While detailed statistics in respect of the imports of processed fruits appear at Volume IV, Table B-2.1, of the Report, following table presents the imports of major fruit preparations coming into the German market.

Imports of Major Fruit Preparations 9/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Jams, marmalades and jellies with sugar | 4,441 | 6,352 | 4,752 |
| Pineapple | 62,464 | 72,378 | 57,645 |
| Other fruits | 154,383 | 189,109 | 39,246 |

(Contd next page)

9/ Ibid

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Plums | NA | NA | 5,829 |
| Cherries | " | " | 8,359 |
| Strawberries | " | " | 7,568 |
| Other Berries | " | " | 4,196 |
| Peaches | " | " | 66,001 |
| Citrus | " | 15,160 | 12,675 |
| Apricots | " | NA | 23,422 |

It would be seen from the above that with the exception of pineapples, the import statistics for other fruits were not indicated separately in the trade statistics of West Germany during 1964-65, rendering the analysis of imports difficult in respect of these items. Pineapples, as would be seen from the above, is the most important single item among imported processed fruits. In 1966, however, peaches secured an edge over pineapples, when their imports were around 66,001 tonnes. "Other fruit" including different varieties of fruits also constitute a large volume item in the German market; their imports were relatively higher in 1964 and 1965 when most of the fruits not shown separately were reportedly grouped under this head. Their imports however declined to 39,246 tonnes in 1966 when major fruits like apricots, plums, cherries, strawberries, etc. were shown separately in the trade statistics.

a) Pineapples. Among pineapple products imported into West Germany, slices constitute the most significant item accounting for about 75%, followed by tidbits and chunks. USA constitutes one of the major suppliers of canned pineapples to the West German market; its market share, however, declined

from 30% to 20% over the period 1964-66. Other suppliers include Ivory Coast, South Africa and Malaysia. Ivory Coast particularly made considerable improvement in her share of the market, rising from 5.7% in 1964 to 8.5% in 1966. The share of the Mexican pineapples declined considerably along with USA in 1966. Statistics indicate that while Philippines maintained her share of about 9% between the years 1964-66, China (Mainland) and Taiwan improved their shares considerably. Chinese pineapple exports to West German market rose from 745 tonnes in 1964 to 986 tonnes in 1966. Taiwan presently constitutes the most important supplier of pineapple products to the West German market, its share rising from 23.7% in 1964 to 34.3% in 1966. A number of American companies have recently secured interests in Taiwan, which has reportedly caused a shift towards increasing supplies from this source. Trade discussions indicated that the success of China and Taiwan is to a large extent, related to lower price quotations in comparison with supplies from USA and Philippines. Pineapples, as in other countries, are increasingly being sold on the basis of price in the West German market.

Pineapple products are imported mainly in containers of less than 1 kg, though limited imports of canned pineapples in containers of 3 kg or above, principally for the requirements of institutional users including processors and catering establishments, are also effected.

Analysis of the imports of pineapples indicates that over 60% of the pineapple imports come from low cost producing countries. This fact helps them in competing effectively in the West German market, despite the long distances at which these countries are located from West Germany. The table

given below gives the average c. i. f. prices per tonne imported in 1966 from major pineapple suppliers to the West German market:

Average Prices of Canned Pineapples from Major Sources 10/

| Source | Average c.i.f. price |
|---|---|
| | $ |
| USA | 307.50 |
| Ivory Coast | 265.00 |
| Mexico | 262.50 |
| South Africa | 257.50 |
| Malaysia | 255.00 |
| Philippines | 245.00 |
| Taiwan | 227.30 |
| China (Mainland) | 205.00 |

It would be seen from the above that the average price per tonne of pineapple products from USA is by far the highest and the decline in the USA's share of West German pineapple market is attributable mainly to this factor. Despite price disadvantage suffered by USA, she continues to be one of the largest sourcesof German imports of pineapples. Discussions with the trade indicated that USA's continued success is on account of the well organised distribution set up of the American companies like Del Monte

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10/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, Table B-2.2, of the Report.

and Libby's who have been able to establish definite brand following among the West German consumers and their products are reputed for superior quality and taste. West German consumers belonging to high income groups place great reliance on these brands which indirectly reflects a preference for superior Hawaiian type of pineapples. Besides price, another factor which has been responsible for the successful entry of low priced pineapples from Taiwan, South Africa and China, relates to the absence of any pineapple production in EEC countries, thus eliminating the danger of tariff wall imposed by EEC on third countries. Discussions as well as analysis of import statistics revealed that though pineapple imports suffered a decline in 1963, the long range growth potential of processed pineapple consumption in West Germany is upward and the slackening trend noticed during 1963 and 1964 needs to be considered purely as a temporary phenomenon.

The trade estimated the total market for processed pineapples to be around 2.7 million cases calculated on the basis of 24xA2½. Besides Del Monte, Libby's and Dole which reportedly command 50% of the aggregate market for pineapple products in West Germany, there are a number of private labels mainly originating from South Africa, Malaysia, Taiwan and USA, responsible for the remaining share of the total market. Suppliers like Taiwan and South Africa find it more profitable to operate under distributor's labels in view of the intensely competitive nature of the market. Furthermore, owing to the growing importance of corporate chains in food retailing, distributor's labels have come to occupy a prominent place in the canned fruit market of West Germany.

(b) Peaches. Imports of peaches continued to be clubbed with other fruits till 1966 when they were shown as a separate item in the trade statistics of West Germany. It would, therefore, be difficult to analyse the import trends of canned peaches for the year preceding 1966, but it was reported that peaches continued to constitute a growing item in the West German market. Imports were to the tune of 66,001 tonnes during 1966, thus giving it a larger share of the market than processed pineapples. USA constituted the leading supplier of peaches to West Germany with a share of about 52% of the total market during that year. Other suppliers included Australia (21%), South Africa (9%), Greece (7%) and Bulgaria (6%). Australia appears to have made an effective penetration into the West German market during the recent past mainly on the basis of intensive promotional effort and aggressive selling done by their exporting companies. While USA's average c.i.f. price was around DM 1,000 ($ 250) per tonne, the Australia c. i. f. price was DM 920 ($ 230) per tonne. South Africa's prices were the lowest, in the neighbourhood of DM 750 ( $ 187.50) per tonne. Trade discussions indicated that yellow clingstone peach halves in A 2½ tins enjoy the maximum popularity in West Germany.

Trade estimates the total market for peaches to be around 3.7 million cases (24xA2½) thus giving it the top position among canned fruits imported presently into West Germany. The market for peaches was mainly dominated by Californian products upto 1963 but recently their share is reported to have declined to 30% of the market, balance being

accounted for by Australia which supplied 1.5 million cases in 1966. South Africa supplied 750,00 cases and Bulgaria 500,000 cases. Libby's continues to be the brand leader, closely followed by Del Monte. Libby's and Del Monte as a matter of policy do not sell their products under private labels. Peaches from Bulgaria, South Africa, Australia and Greece, however, are increasingly being sold under private labels including VEGI, EDELIA, SPAR, A&O, TIP, REWE and CALCAN.

(c) Citrus Segments. German import statistics do not give detailed information on the breakdown of the citrus market. It is known that total imports amounted to 12,675 tonnes in 1966. Though breakdown of this item is not available, trade discussions indicated that canned segments mainly comprised mandarin orange segments and grapefruit sections, the former constituting the bulk. Japan was the main supplier accounting for about 80% of the total imports of citrus products. China (Mainland) has also come to be an important supplier of this item catering to about 7% of the total market in 1966. 288 tonnes of orange segments were imported from Spain during 1966. While Japan's continued hold over the market is mainly attributable to the superior quality and established reputation in the manufacture of mandarin orange segments, China's success is dependent upon lower price quotations. Japan's average prices were around DM 2,000 ($ 500) per tonne against Chinese average cif prices of DM 1,500 ( $ 375). Trade discussions indicated that the Chinese products being relatively inferior in quality, do not come up to the standards of Japanese segments. The market for citrus products is growing and is

believed to have a high growth potential. In the absence of any domestic production for citrus products, expansion in demand will need to be met entirely through imports.

(d) Fruit Cocktails. German trade statistics do not give any detailed information about the imports of fruit cocktails as they are included in the 'other fruits'. According to the trade, the total market size for fruit cocktails is around one million cases (24 x A2½); 600,000 cases were accounted for by national brands like Libby's and Del Monte, the remaining comprising relatively inferior products from Greece, Spain, South Africa and Australia. It was also learnt that the pattern of packaging of Libby's and Delmonte was evenly divided between the sizes of 303 and 2½. The remaining 400,000 cases are mostly marketed in glass packs of No. 1 Tall size and 16½ oz size. Californian fruit cocktails constitute the most popular item among German consumers, holding presently a 40% share of the total fruit cocktail market, the remaining being shared jointly by Italy, Spain and Australia. Prices of Italian, Spanish and Australian fruit cocktails are relatively lower than Californian cocktails. Discussions further indicated that Libby's is the brand leader among superior quality products, its supplies being around 300,000 cases in 1967.

(e) Other Products. In addition to the above mentioned major products imported presently into the West German market, others include apricots, cherries, strawberries and other berries. Official statistics indicate that apricots were

imported to the extent of 23,422 tonnes in 1966, cherries 8,359 tonnes, strawberries 7,568 tonnes and other berries 4,196 tonnes. The major suppliers of apricots include Spain and South Africa claiming a share of 70% between themselves. Plums were mainly supplied by Yugoslavia and Hungary, and cherries came from Romania and USA.

While imports of most of these products do not constitute a significant proportion of the total consumption of processed fruits and vegetables in West Germany, an exception needs to be made in respect of strawberries which are being increasingly imported into the West German market. It has been estimated that during the last 5 years consumption of strawberries more than doubled whereas domestic production was not able to keep pace with rising consumption. In fact a declining trend has been noticed in the domestic production necessitating increased imports. It is reported that imported strawberries rose in importance accounting for over 50% of the total consumption during 1964-66. The market is principally controlled by Netherlands and East European countries including Bulgaria and Poland. Discussions with the trade indicated that the success of East European countries in the German market for strawberries is mainly attributable to two factors, viz. favourable location in respect of shipping and lower prices. Interestingly, Bulgaria has come out to be the major supplier of processed strawberries. Though the market offers a temporary opportunity in view of the flucations in the supplies of the fresh fruit, it is believed that on account of the factors enumerated above, East European countries would find a permanent place in the West German market. Strawberries are normally

imported in containers of less than 5 kg, thus reflecting a very limited institutional market for strawberries.

Jams. There is a substantial production of jams, jellies and marmalades in West Germany, having risen from 604 tonnes in 1964 to 1,487 tonnes in 1966. It was also indicated earlier that per capita consumption of jams and jellies climbed from 346 gms in 1950 to 426 gms in 1966. Discussions with the trade indicated that packs of jams and single fruit marmalades for use by house-hold consumers are by far the most important item among jams and jellies sold presently in the West German market. Market for blended jams is relatively limited as they are regarded as inferior products in comparison with single fruit marmalades and jams. Despite large production imported jams and jellies continue to be sold in small quantities. A major opportunity, however, exists in fruit pulp and semi-finished products for use in the manufacture of jams and jellies. Imports of these items aggregated to 4,792 tonnes in 1964, major suppliers including Belgium, Netherlands, UK and South Africa. Though the market is almost evenly divided among these countries, Belgium held about 25% share of the market, having improved her stakes in the recent past mainly at the expense of South Africa and Netherlands. Scope also exists for the sale of special English type of jams imported from South Africa and UK. Low-priced jams emanating from South Africa, Jamaica and East European countries are also increasingly sold in the West German market. Orange marmalades, for instance, offer adequate possibilities for expanded sales in the market.

Fruit Juices. Annual consumption of fruit juices in West Germany has been estimated around 400,000 tonnes, which is probably the highest in the whole of Europe. Major juices

consumed in Germany comprise apple juice and grape juice, the requirements of which are mainly met by the domestic industry. Nevertheless, considerable quantities of fruit juices are being imported, details of which are presented below:

Imports of Major Fruit Juices[11/]

(Tonnes)

| | 1966 |
|---|---|
| Apple and Pear juice of density exceeding 1.33 at 15°c | 12,176 |
| Other Fruit and Vegetable juices of density exceeding 1.33°at 15°c | 297 |
| Juices of density of 1.33 or less at 15°c | |
| Grape juice | 53,724 |
| Orange juice | 32,190 |
| Other citrus juices | 9,980 |
| Pineapple juice | 1,117 |
| Apple and Pear juices | 3,810 |
| Tomato juice | 5,829 |
| Other Fruit juices | 5,042 |
| Mixed juices | 3,936 |

It is indicated from the above that grape juice, orange juice, other citrus juices (grapefruit, lemon and blended) and mixed juices constitute over 70% of the total West German imports. Mention has been made earlier that fruit juices, extracted mainly from apples, grapes and berries are manufactured in adequate quantities in West Germany. For citrus juices, however, West Germany has to depend mainly upon imports emanating principally from USA and Israel.

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11/ Federal Bureau of German Statistics, Bonn

Though trade statistics are not available separately for certain major juices, it is estimated that citrus juices account for over 30% of the total consumption of fruit juices in West Germany. Trade discussions revealed that the share of citrus juices has been rising sharply and imports in 1966 accounted for over 46% of the imports of all fruit juices.

(a) Citrus Juices. Imports into West Germany can be classified under concentrated juice and single strength juices. While the degree of concentration and processors specifications are the main selling points for concentrated juices, price is the major determinant of single strength juices. In view of the large scale production of innumerable varieties of juices and fruit drinks on the basis of imported concentrates on the one hand and the EEC tariff structure on the other, the market prospects for single strength juices are unlikely to be promising.

The table given below indicates the imports of different types of citrus juices during 1961-64.

Imports of Citrus Juices by Varieties[12/]

( Million Dollars)

| | 1962 | 1963 | 1964 |
|---|---|---|---|
| Concentrated Orange Juices | 6.91 | 9.30 | 9.51 |
| Straight Orange Juice | 2.78 | 2.61 | 2.68 |

(Contd. next page)

12/ The Market for Citrus Juices in three West European Countries, Gatt International Trade Centre, Geneva, 1966

| | 1962 | 1963 | 1964 |
|---|---|---|---|
| Sweetened Citrus Juices | 1.13 | 1.92 | 1.52 |
| Straight Lemon Juice | 1.10 | 1.14 | 1.45 |
| Concentrated Lemon Juice | 0.21 | 0.20 | 0.27 |
| Total | 12.13 | 15.17 | 15.43 |

It would appear from the above that concentrated orange juice accounted for 61.6% of the total imports of citrus juices in 1964, imports having markedly increased from $ 6.91 million in 1962 to $ 9.51 million in 1964. Straight orange juice and sweetened citrus juices showed signs of decline, whereas straight lemon juice and concentrated lemon juice picked up marginally during the period.

Discussions with the trade indicated that concentrated orange juice, chemically preserved, is imported in barrels of about 50 gallons (250 kg). Small quantities of orange juice are also imported as hot pack in cans of 3/4 gallon (can size A 10). Imports of chemically preserved concentrates are two times higher than those of hot packs in view of the lower tariff rates leviable on the former.

Citrus juices, as indicated earlier, were mainly supplied by USA till 1963 but on account of high prices and fluctuations in the supplies of Californian juices, the market is gradually being taken over by Italy, Spain, Argentina, Israel, Brazil and Greece. Spain met 25.6% of the total imports of concentrated orange juice in 1964, followed by Italy (22.7%) and Israel (11.5%). In respect

of straight lemon juice, Israel led the market with 51.7% share followed by Greece and South Africa. Israeli citrus juices have been able to establish a distinct brand image among the West German consumers resulting in increased sales for their single strength juices. In the case of lemon juices as well, USA appears to be losing its hold over the market mainly on account of prices and crop conditions in USA.

Discussions with the trade indicated that bottled juices are preferred to natural straight juices in cans by the German consumers. This is on account of two factors viz. i) Unlike canned juice, bottled juice does not have the metallic taste and ii) the contents of the canned juice have to be consumed immediately after opening unlike the bottled juices. Bottled juices are gaining popularity despite the fact that their prices are generally higher than their canned counterparts.

Citrus juices are principally consumed in the form of fruit juices and soft drinks manufactured locally from imported concentrates with a juice content of 40%. As against natural juices, the consumption of citrus juice-based soft drinks is rising rapidly leading to increased imports of concentrated juices. The Survey revealed that while German consumers prefer juices with consistent dark colour and slight cloudiness, light yellow orange juice is not favoured.

It would thus be seen from the brief analysis given above that though West German continues to offer a limited market for single strength canned juices, a definite shift

towards bottled citrus juices and citrus based fruit drinks is discernible. These are produced domestically thereby, necessitating the increasing imports of juice concentrates. The packing specifications for different types of juices as prevalent in West Germany are indicated below:[13/]

Single Strength Juices

Cartons of 24 x No. 2 (18-20 oz)
Cartons of 12 x No. 3 (43-46 oz)
Cartons of 48 x 60 oz (Lemon Juice)
Cartons of 12 bottles x 0.7 litre

Concentrated Juices

Hot pack in tins No. A10 (1¾ US gallon)
Hot pack in tins No. 12 (1 US gallon)
Preserved concentrates in steel barrels with polythene coatings of 54 gallons (250 kg)

Prices of juices emanating from major suppliers are given below:

| | | CIF Price per Kg. |
|---|---|---|
| USA | Oranges concentrated Juice of 65° Brix | $ 1.00 |
| Spain | " | $ 0.72 |
| Israel | " | $ 0.53 |
| Brazil | " | $ 0.50 |

13/ Field Survey

It would be seen from the above that USA's prices are by far the highest for concentrated juices as against the lowest prices of Brazil, which has come up as an important supplier of concentrated juices to West Germany over the last few years. Total share of Brazil in the concentrated juice market jumped from 0.8% in 1962 to 12.5% in 1966, mainly on account of relative price advantage. Despite higher prices, Israeli juices enjoy a better reputation in the market owing to the superior quality of the product and packaging. Following are the average unit prices of orange juice of density less than 1.33 at 15°c from major sources:

Unit Price of Orange Juice by Sources[14/]

| Source | (Dollar/Tonne) |
|---|---|
| USA | 820.50 |
| Spain | 660.00 |
| Brazil | 592.50 |
| Italy | 533.00 |
| South Africa | 520.00 |
| Israel | 355.00 |
| Morocco | 337.50 |
| Greece | 257.50 |

(b) Apple and Pear Juices. Apple and pear juices, important among non-citrus juices, were imported to the tune of 12,176 tonnes in 1966. France being the major supplier with 47.1% share of the market, followed by Italy (27.7%), Hungary (10.9%) and Bulgaria (10.8%). In

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14/ Ibid

respect of apple juice of a density of less than 1.33, France was also the major supplier closely followed by Italy. Grape juice, the largest volume item in this group, was imported to the extent of 53,724 tonnes in 1966, Italy accounting for 39.2% of the total imports. Other major supplier included France (33.8%), Morocco (19%) and Spain (8%).

(c) Tomato Juice. There is a limited market for tomato juice, total imports reaching 5,829 tonnes during 1966. Here again, France leads the market with about 31.8% share closely followed by Italy (29.5%) and Romania (17.2%).

(d) Mixed Juices. Imports of mixed juices were around 110,000 tonnes in 1965, but subsequently they declined to 3,936 tonnes in 1966. This decline, according to trade, was a temporary phase due to excessive over-stocking in 1964-65. Major suppliers of these juices include France, Israel, Italy, Switzerland, Spain and USA. However, supplies from Israel, Italy, Switzerland, Spain and USA. However, supplies from Israel, Argentina, South Africa, Greece, Spain, Switzerland and Italy were negligible in 1966 owing to drastic reduction effected in the imports of mixed juices.

(e) Pineapple Juice. Pineapple juice is a very small item in the West German market with imports at 1,117 tonnes in 1966, Philippines being the largest supplier.

Canned Vegetables. Production of canned vegetables in West Germany has been rising steadily with the exception of 1964 when a declining trend was noticed on account of general crisis in the European canned vegetable industry. It was

mentioned earlier that the total consumption of canned vegetables in West Germany rose from 833,200 tonnes to 930,500 tonnes between 1964 and 1966, a major proportion of it being met through domestic production. Exports of canned vegetables are inconsiderable at 3,900 tonnes in 1966. While detailed statistics appear at Volume IV, Table B-2.2, of the Report, imports of major canned vegetables during 1964-66 are presented below:

Imports of Major Processed Vegetables 15/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Vegetables in brine | 2,926 | 5,114 | 5,177 |
| Dehyrated onions | + | + | 2,371 |
| Other dehydrated vegetables | 4,732 | 5,097 | 3,760 |
| Dried vegetables | 55,105 | 53,586 | 23,190 |
| Dried beans | + | + | 23,678 |
| Dried Peas | 45,382 | 60,233 | 28,247 |
| Canned peas | + | + | 23,678 |
| Mushrooms | 140,736 | 191,771 | 23,843 |
| Tomato concentrates | + | + | 32,319 |
| Asparagus | + | + | 23,480 |
| Processed peas | + | + | 44,734 |
| Beans | + | + | 46,944 |
| Other prepared vegetables | + | + | 27,344 |

(+ Not specified separately)

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15/ Federal Bureau of Statistics, Bonn

It would be seen from the above that mushrooms, asparagus, tomato concentrates, dehydrated vegetables, peas and beans constitute the major items of import into West Germany.

(a) Tomato Products. Though adequate supplies of fresh tomatoes are available in West Germany, majority of the tomato-based industries depend upon imported tomato puree and concentrates for the manufacture of items including tomato catsup, beans in tomato sauce and other related items. It was understood that most of the fresh tomatoes grown in the country are consumed locally in fresh form resulting in inadequate availability of fresh tomatoes for the local processing industry. Tomato concentrates which are imported in containers of 5 kg. and above, and those under 5 kg were together imported to the extent of 32,379 tonnes in 1966. Trade circles estimate that imports in small sizes (2½ oz, 5 oz, 14 oz and 30 oz) are almost three times higher than those in larger containers (5 kg and above). Italy constituted the largest supplier of tomato concentrates to West Germany during 1966, with 60.6% share. Other suppliers included Portugal, Bulgaria, Czechoslovakia, Spain and France. Italy and East European countries have been able to establish themselves as major suppliers of tomato concentrates to West Germany, in view of their relatively lower prices as against supplies from USA and France. Tomato products coming into West Germany are mostly low priced products as would be seen from the table given below indicating the average c.i.f. prices per tonne for 1966 as computed from the trade statistics:

(Next page)

Unit Prices of Tomato Products by Sources 16/

| Country | Per Tonne (DM) | Per Tonne ($) |
|---|---|---|
| France | 2,100 | 525 |
| Italy | 1,600 | 400 |
| Czechoslovakia | 1,000 | 250 |
| Spain | 1,000 | 250 |
| Bulgaria | 900 | 225 |

It is seen from the above that the prices of French concentrates are relatively higher than those from Italy and Bulgaria. Bulgaria, a non-EEC member, is following the strategy of offering lower price than Italy in view of the tariff restrictions imposed by EEC on supplies from third countries.

(b) Semi-Processed Vegetables. Semi-processed vegetables including those in brine are imported in large quantities mainly for meeting the requirements of processors in West Germany. Vegetables in brine, for instance, were imported to the extent of 5,177 tonnes in 1966, registering a rise of about 80% over 1964. Major suppliers included USSR and Poland (24% each) and Netherlands (21%). East European countries which dominate the market with 55% share of the total imports, have an edge over other suppliers in respect of distance as well as competitive prices.

(c) Dehydrated Onions. Dehydrated onions have shown adequate promise in West Germany during the recent past. In 1966, 65% of the total imports of 2,371 tonnes were supplied by East European countries including Bulgaria and Romania, followed by UAR with 17.6% share. The prices of the East European countries were, as revealed by the Survey, about 25% lower than those of

16/ Ibid.

UAR, which has been the traditional supplier to West Germany for a considerable period.

(d) Dehydrated Vegetables. In respect of other dehydrated vegetables (okra, spinach, lettuce, etc.), the imports declined from 4,732 tonnes to 3,760 tonnes during 1964-66. Here again, besides Netherlands, East European countries constitute the major suppliers. Countries including Israel, Taiwan, Italy, and USA are the other suppliers of this item to West Germany, but their share of the market is negligible. Dried peas were imported to the extent of 28,247 tonnes in 1966 as against 45,382 tonnes in 1964, Poland, Hungary, USA and USSR and Czechoslovakia being the principal suppliers.

(e) Canned Mushrooms. Imports of canned mushrooms amounted to 23,843 tonnes in 1966, as against 1,40,736 tonnes in 1964. The consumption of canned mushrooms has been declining over the last 5 years in West Germany. Taiwan held 64.7% of the market in 1966 as against 11.2% in 1964. Other suppliers included France (22.4%) and Netherlands (10.4%). Unit prices of major suppliers in 1966 were as follows:

Unit Prices of Canned Mushrooms by Sources 17/

| Country | Per Tonne (DM) | Per Tonne ($) |
|---|---|---|
| France | 4,400 | 1,100 |
| USA | 4,200 | 1,050 |
| Netherlands | 4,000 | 1,000 |
| Taiwan | 3,500 | 875 |

Discussions with the trade confirmed that the market for canned mushrooms will continue to decline in West Germany owing to the increasing cultivation of fresh mushrooms in cellers by individual consumers.

17/ Ibid

(f) Canned Asparagus. In 1966, imports amounted to 23,480 tonnes originating mainly from Spain, USA and Japan. Approximately 59% of the market requirements for imported asparagus were met by Taiwan whose products are relatively cheaper than those from USA and Netherlands. While the average c.i.f. price from Netherlands was DM 3,500 ($ 875) per tonne, Japan at DM 3,000 ($ 750) and Taiwan supplied at DM 2,700 ($ 675) during 1966.

(g) Other Vegetables. Despite substantial domestic production of peas in West Germany, some quantities of peas are imported from France, Bulgaria, Netherlands and Romania. Germans are good pea-eaters and the local production reportedly does not meet their requirements, resulting in increasing imports of processed and green peas. Peas were imported to the extent of 46,944 tonnes principally from France, Belgium, Czechoslovakia and Netherlands.

The brief analysis of imports of canned vegetables as given above indicates that West Germany offers adequate prospects for the sale of imported canned items particularly tomato concentrates, asparagus, beans, peas, mushrooms and semi-processed products like vegetables in brine, and dehydrated vegetables and onions. It has also been seen that owing to certain factors like geographic proximity and controlled economies the East European countries, are steadily taking over a large proportion of the market. Trade circles felt that the quality of canned vegetables from these countries is of acceptable standards. Though presently there is not much import of tropical canned vegetables, the establishment and the successful operation of certain speciality shops indicates the prospects for larger sales of canned tropical vegetables.

Channels of Distribution

The West German market for canned fruits and vegetables can be classified into two sections, viz. i) consumer products in retail packs, and ii) semi-processed items like vegetables in brine, pulps, etc in bulk packs required mostly by processors.

Trade discussions indicated that over 70% of the requirements of the canning industry for semi-processed item are met through importers, brokers and exclusive agents operating in West Germany, while the remaining is accounted for by direct imports. Operations through importers or brokers are found economical as the requirements of individual processors are not large enough to justify direct imports. Overseas exporters also hesitate to undertake supplies to individual processors as it involves contacting a relatively larger number of customers resulting in considerable expenditure on promotion and sales visits.

In the case of canned fruits sold in retail packs, it is believed that a major proportion of the import trade continues to be handled by import houses and brokers. However, with the establishment of large buying groups in West Germany, a growing trend towards direct imports is discernible though their present stake in the total trade is negligible.

The retail food trade in West Germany comprises principally buyer's cooperatives, consumer cooperatives, voluntary chains, departmental stores, and chain stores. Most of these institutions undertake wholesaling and retailing functions in respect of canned products. Exception may, however, be made in the case of small departmental stores who get affiliated to a buying cooperative for meeting their small volume requirements. According to the Nielsons's Index, the position of retail food trading in West Germany in 1966 was as follows:

(Next Page)

Retail Food Trading in West Germany 18/

| Type of Organisation | Number of outlets | Percentage to total outlets | Turnover in Million Dollars | Percentage to total retail turnover |
|---|---|---|---|---|
| Chains and Cooperatives | 14,203 | 9 | 2,802 | 28 |
| Large Self-Service Stores | 17,283 | 10 | 2,569 | 26 |
| Small Self-Service Stores | 35,361 | 21 | 1,656 | 16 |
| Large Counter-Service | 31,993 | 19 | 1,796 | 18 |
| Small Counter-Service | 69,545 | 41 | 1,255 | 12 |

It can be inferred from the above data that chains and cooperatives, large self-service stores and large counter-service stores constituting 38% of the total outlets command 72% of the aggregate food retail turnover in West Germany. On the other hand, the small self-service stores and counter-service stores numbering 62% retain a share of 28%. These indicate the growing importance of large viable stores in food retailing in the country.

This view has been confirmed by a Survey undertaken by the Federal Bureau of Statistics, Bonn:

i) The sales of large enterprises are expanding more rapidly than those of smaller stores. The Survey indicated that stores with an annual turnover of DM one million ($ 250,000) registered a growth rate of 11% as against 6% of those with a turnover of less than DM one million in 1964.

ii) There is a growing tendency among the retailers to join vertical organisations. The Survey revealed that buyers' groups, cooperatives and voluntary chains handled 95% of total merchandising in 1964 as against 5% undertaken by independent retailers not belonging to any group, cooperative or chain.

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18/ Nielson's Index

The principal voluntary chains controlling the major proportion of the West German market in 1968 are listed below along with the number of retail points operated by them:

Major Voluntary Chains in West Germany [19]

| Name of the Organisation | Number of Retailers |
|---|---|
| FACHRING | 53,000 |
| AFU | 52,000 |
| TIP | 48,000 |
| EDEKA | 42,097 |
| REWE | 13,416 |
| SPAR | 11,300 |
| A & O | 11,000 |
| VIVO | 9,000 |
| VORTEL KOLONIAL | 6,000 |
| CENTRA | 5,000 |

In addition to the above, 91 small chain stores operate in West Germany with 6,196 retail points. 83 of these chains reportedly have established a wholesale purchasing organisation called 'JEDELFI' with a view to centralising the buying function.

Consumer cooperatives also constitute an important segment of food merchandising in West Germany. The cooperative movement in West Germany, however, has not grown rapidly because of the operation of powerful buying groups which offer similar facilities to their affiliates.

In brief, it may be stated that the above vertical organisations created pockets of centralised buying power enabling them to dictate terms to the foreign suppliers in respect of price, quality, packaging and promotion.

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19/ Field Survey

The most significant result of this development relates to the sale of canned fruits and vegetables in distributor's labels. With exception of Del Monte and Libby's, who reportedly do not sell their products under distributor's labels as a matter of policy, a major proportion of the imports is now being sold under private labels. Strict quality measures are enforced by the chains opting to sell imported products under their own labels. Trade estimates that more than 25% of the South African and Australian goods imported into West Germany are sold under private labels. This is an area which offers adequate prospects for Indian processors interested in selling under private labels in West Germany.

Import Policy and Regulations

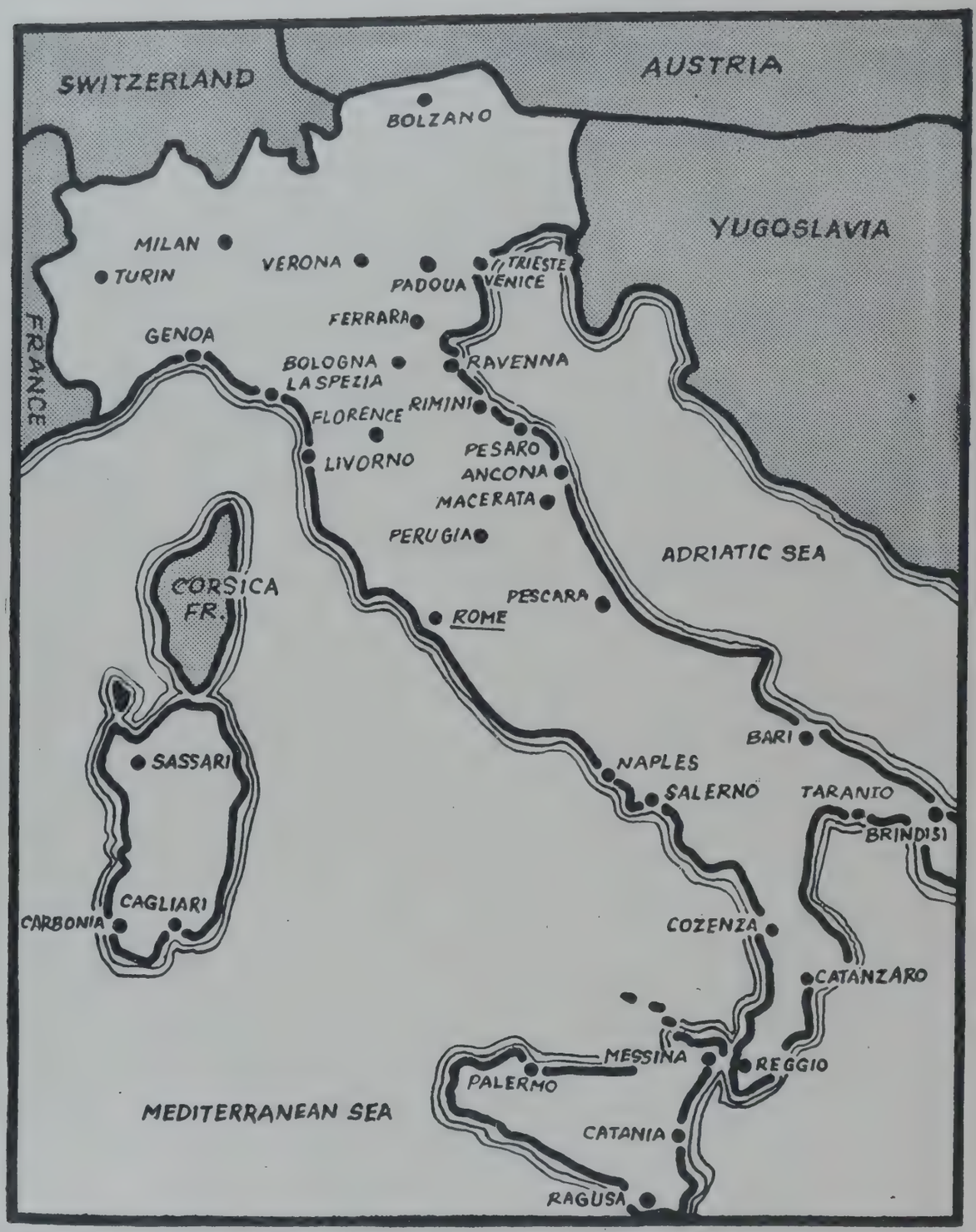
Besides EEC regulations enforced by the member countries in respect of imported processed fruits and vegetables, the Government of West Germany has also imposed certain other restrictions in respect of contents of the product and the techniques used for processing. While details regarding these regulations as well as the custom duties leviable on these products are furnished at Volume V, Chapter 4(b) and 7(b) of the Report, some of the major highlights of these regulations are detailed below:

Labelling. West German regulations require that food imports in retail packs which are labelled in a foreign language must contain in German language a complete description of the contents, quantity as well as the country of origin.

Health Regulations. German regulations are very strict and specific in regard to the contents of the products falling under food group. For instance, juices for direct consumption must be prepared by pressing the fruit without any additions. It should be lightly sweetened and undiluted by adding 5% to 20% refined sugar (in syrup) and the alcohol content must not exceed 0.5%. Juices should be natural, prepared completely from materials with

natural content of flavouring substances with no added foreign elements. 'Vanillin' can be added provided its characteristic flavour or odour is not imparted to the base of the juice.

In case any other substances are present in the product, the pack must carry the description 'artificial'. In case certain artificial flavours like acid glyceryl ester ammonium chloride (to be used only in synthetic hot and cold beverages, carbonated drinks, etc), the description should say 'artificial flavour'. In addition to the above, various other restrictions on the types of fruits to be used and the maximum amount of preservatives allowed, have been prescribed by the Government.


SWITZERLAND
AUSTRIA
BOLZANO
YUGOSLAVIA
MILAN
TURIN
VERONA
PADOUA
TRIESTE
VENICE
FERRARA
GENOA
FRANCE
BOLOGNA
LA SPEZIA
RAVENNA
RIMINI
FLORENCE
LIVORNO
PESARO
ANCONA
MACERATA
PERUGIA
ADRIATIC SEA
CORSICA
FR.
PESCARA
ROME
BARI
SASSARI
NAPLES
SALERNO
TARANTO
BRINDISI
CAGLIARI
CARBONIA
COZENZA
CATANZARO
MESSINA
REGGIO
PALERMO
MEDITERRANEAN SEA
CATANIA
RAGUSA

## 5.3 ITALY

### Background

Italy is the second largest country in Europe, next to West Germany in terms of population. Total population was reckoned at 52 million in 1967 with a per capita income of $ 1,186. Per capita income has been increasing rapidly in the recent past and is projected to rise to $ 1,500 by 1970. Total private consumption was around Lire 24.9 billion ($ 401.61 million) in 1966, which accounted for 63.1% of the GNP at current prices; expenditure on food represented 42.5% of the total private consumer expenditure during the year.

Being one of the most important horticultural producers in the Mediterranean area, Italy's exports of fresh as well as processed fruits and vegetables is considerable. The total production of fruits and vegetables has been rising since 1950s, production in 1966 having amounted to 24.24 million tonnes, as against 22.51 million tonnes in 1964. Exports of horticultural produce was quite important, representing 55% of the total exports of agricultural products in 1964 and 57% in 1966 thus reflecting the growing nature of the horticultural industry.

### A. Fresh Fruits and Vegetables

### Market Size

Consumption of fresh fruits and vegetables in Italy has been considerable as Italians normally prefer to eat fruits and vegetables in fresh form. Domestic demand for fresh fruits and vegetables is very strong in Italy as a result of which a major proportion of the fruits and vegetables grown in the country is consumed locally in fresh form thus

leaving small surpluses for export. Following table gives the apparent consumption for fruits and vegetables in Italy during 1965-66 period:

Apparent Consumption of Fresh Fruits Vegetables in Italy 1/
(1964-66 average)

Quantity: Million Tonnes
Value : Million Dollars

| | Fresh Vegetables | | Fresh Fruits | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 13.63 | - | 9.49 | - |
| Imports | 0.32 | 35.55 | 0.21 | 41.17 |
| Exports | 0.68 | 92.63 | 1.73 | 280.20 |
| Apparent consumption | 13.27 | - | 7.97 | - |
| Per capita consumption (kg) | 253 | - | 153 | |

From the above, it is clear that average annual consumption of fresh fruits and vegetables between 1964 and 1966 was of the order of 21.24 million tonnes, fresh vegetables accounting for 68% and fresh fruits 32%.

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1/ Agricultural Year Book of Italy, 1967

Production. Total production of fresh fruits and vegetables in Italy rose from 22.51 million tonnes in 1964 to 24.24 million tonnes in 1966 reflecting a growth of approximately 7% over the period. According to the OECD study undertaken on Italian horticulture, production rose from Lire 533 billion in 1952 to Lire 1,262 billion in 1964 2/.

Total area under fruit and vegetable cultivation in Italy is reckoned at 1.2 million hectares comprising 1.02 million hectares under vegetables and 0.25 million hectares under fruit trees. In view of the intensive efforts being made presently for expanding cultivation, the area under horticultural crops is projected to rise to 1.5 million hectares by 1970.

Fresh Fruits. Fruit production in Italy rose from 9.21 million tonnes in 1964 to 10.05 million tonnes in 1966. Major fruits grown in Italy comprise citrus fruits, apples, pears, peaches, grapes and watermelons. Small quantities of cherries, plums, apricots, pomagranates and strawberries are also raised in the country. While the detailed statistics on the production of fresh fruits and vegetables are provided at Volume III, Table A-1.3 of the Report, the following table presents the production of major fruits in the country during 1964-66:

(See next page)

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2/ Production of Fruits and Vegetables in OECD member countries Present situation and 1970 prospects, Italy, OECD, Paris, 1966

## Production of Major Fruits in Italy 3/

(Thousand Tonnes)

| | | 1964 | | 1966 |
|---|---|---|---|---|
| Citrus | | 1,804.0 | | 2,029.0 |
| Oranges | 1,804.0 | | 1,176.0 | |
| Lemons | 559.5 | | 603.9 | |
| Mandarins | 163.8 | | 193.0 | |
| Bergamottis | 54.9 | | 50.7 | |
| Apples | | 2,381.4 | | 2,584.4 |
| Pears | | 1,080.8 | | 1,249.2 |
| Peaches | | 1,308.7 | | 1,423.4 |
| Grapes | | 792.8 | | 858.4 |
| Melons | | 887.1 | | 905.4 |
| Total (incl. others) | | 9,218.6 | | 10,050.0 |

It would appear from the above that apples constitute the most important fruit crop covering about 25% of the total fruit production in Italy in 1966. Citrus fruits comprising mainly oranges, mandarins, lemons and bergamottis account for 20% of the total fruit crop in Italy. It would further be seen that the production of most of the crops has been rising over the period though the rise in citrus fruit production has been more pronounced than other fruits.

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3/ Ministry of Agriculture, Rome, Italy.

The Survey revealed that with the exception of strawberries and table grapes, Italian production in 1967 was lower than the previous year, reduction being of the order of 17% in apricots, 16% in peaches, 18% in pears, 15% in apples, 9% in plums and 6% in cherries. This was mainly attributable to the bad crop conditions in 1967. It is reported that approximately 3 million trees of peaches were lost during 1967 due to 'root asphyxia' in the Ravenna and Ferrara provinces of Italy. Total production of fruits during 1967 according to the preliminary estimates of Central Institute of Statistics, Rome was around 4.9 million tonnes (excluding citrus) against 8.0 million tonnes (excluding citrus) in 1966. Outlook for future production is, however, predicted to be bright.

Fresh Vegetables. Production of vegetables which is approximately 30% higher than fruit production, rose from 13.30 million tonnes in 1964 to 14.19 million tonnes in 1966. The rise during 1964-66 in respect of vegetables, however, was less pronounced as against fruits. Production statistics of Italian vegetable crops are given at Volume III, Table A-1.3 of the Report. Data on the production of major vegetable crops in Italy during 1964-66 has been presented below:

Production of Major Vegetables in Italy 4/

(Thousand Tonnes)

| | 1964 | 1966 |
|---|---|---|
| Potatoes | 3,823.4 | 3,869.9 |
| Tomatoes | 2,950.2 | 3,469.1 |

Contd.....

4/ Ministry of Agriculture, Rome, Italy, Op.cit.

| | 1964 | 1966 |
|---|---|---|
| Cabbages | 846.2 | 662.4 |
| Salads | 751.0 | 762.3 |
| Cauliflowers | 684.5 | 677.3 |
| Artichokes | 468.6 | 580.1 |
| Total (incl. others) | 13,307.2 | 14,195.5 |

In addition to the above mentioned vegetables, there is sizeable production of beetroots, asparagus, cucumbers, onions, green and broad beans, aubergines, turnips, spinach and mushrooms. Production of all these vegetables has been rising over the period with the exception of turnips, spinach, mushrooms and broad beans where marginal decline was registered during the period. This is, however, considered to be a temporary phenomenon.

Some of the major horticultural products of Italy are discussed in detail below:

Peaches. Peaches constitute one of the most important crops in Italy. Production of peaches has been rising continuously with the exception of 1967 when due to indifferent crop conditions a large number of trees were lost. During 1952-64 period, for instance, production rose from 380,600 tonnes in 1952 to 1.29 million tonnes in 1965 and to 1.42 million tonnes in 1966. The yield per hectare has also been continuously rising, from 8.5 tonnes in 1955 to 12.8 tonnes in 1963.

According to the OECD study, of the total production of 1.30 million tonnes of peaches in 1964, home market

consumed 1.01 million tonnes; 168,500 tonnes were exported in fresh form and 28,900 tonnes were utilised by the processing industry. Out of a total production of 1.42 million tonnes in 1966, 1.15 million tonnes were consumed locally; 270,385 tonnes were exported and 57,000 tonnes were utilised in the manufacture of canned peaches (15,000 tonnes), jams (5,580 tonnes), cider and nectars (7,500 tonnes), dried peaches (50 tonnes) and animal foods waste (30,000 tonnes). OECD study anticipates that by 1970 total production of peaches will be 1.50 million tonnes (13.5 tonnes per hectare yield) comprising 1.15 million tonnes for domestic consumption, 300,000 tonnes for exports and 50,000 tonnes for processing.

In 1964, 37% of the total peach production in Italy accounted for yellow-fleshed varieties (mainly James Hale, Dixired, Elberta and Red Heaven), 35% for white-fleshed varieties (mainly Amsden, Sant'Anna Balducci and May Flower), remaining being accounted for by local unspecified varieties. It is, however, understood that present production between yellow and whitefleshed varieties is almost evenly divided.

Table Grapes. Total production of table grapes has been rising steadily in Italy, from 792,800 tonnes in 1964 to 858,200 tonnes in 1966; it is projected to rise to 1.25 million tonnes by 1970. The OECD study indicates that during 1964, approximately 48% of the total crop of 365,200 tonnes was consumed locally, remaining going for exports (152,000 tonnes) and processing (145,900 tonnes). The yield for grapes has been registering an erratic trend over the period 1957-64; it rose from 4.5 tonnes to 11.8 tonnes in 1962 and declined to 6.3 tonnes in 1964.

The major varieties of table grapes produced in Italy comprise Regina (52.7%), Regina Die Vigneti (8.4%), Italia (8.2%), Panse (5.7%), Cardinal (3.4%) and Primus (3.2%).

Citrus. Italian citrus production comprising mainly oranges, lemons and mandarins was 1.17 million tonnes in 1966 as against 1.01 million tonnes in 1964. Production has been upwards since 1952 when it was reckoned at 549,700 tonnes.

Analysis of the utilisation of oranges, as given by OECD, indicates that out of a total production of 922,200 tonnes during 1963, 710,800 tonnes were marketed as fresh for home consumption, 157,200 tonnes were exported and 46,000 tonnes diverted to the domestic processing industry, reflecting 77% consumption in fresh form in the country. OECD projections indicate that out of the anticipated production of 1.20 million tonnes in 1970, 0.90 million tonnes will be consumed locally, 0.23 million tonnes would be exported and 76,000 tonnes utilised by the processing sector. The present production of oranges in Italy, mainly includes blood oranges (mainly Tarocco, Moro, Common Sanguinello and Sanguinello) and Common Blond oranges, blood oranges accounting for 54.7% and blond oranges 42.2%. While Italian production consisted mainly of blood oranges till 1960, the present trend is towards the production of Blond varieties including mainly Valencia Late, Washington Navel and Italian Oval which are in greater demand in overseas markets. The orange yield per hectare in Italy has almost been stagnant around 14.6 tonnes over the period 1952 and 1965.

Italy constitutes the largest producer of lemons in the world with a production of 603,900 tonnes in 1966 having risen from 486,600 tonnes in 1963. Of the total 1963 production, 28% were consumed locally, 48% exported and 24% processed. The yield for lemons in Italy is quite high; it rose from 11.8 tonnes per hectare in 1952 to 16.6 tonnes in 1964. The per capita consumption of lemons in Italy is reckoned at 2.4 kg.

Apples. Apples constitute the biggest item among horticultural produce of Italy, with a total production of 2.58 million tonnes in 1966. Apple production has been continuously rising in Italy, from 0.93 million tonnes in 1955 to 1.83 million tonnes in 1960, 2.33 million tonnes in 1963 and 2.58 million tonnes in 1966. The utilisation of apples in 1963 was as follows:

(Thousand Tonnes)

| | |
|---|---|
| Total Production | 2,336.4 |
| Domestic consumption (fresh) | 1,061.7 |
| Exports (fresh) | 405.7 |

It would be seen that approximately 45% of the total apple production is consumed locally in fresh form 17% directed to export markets and the remainder used for distilling purposes. The per capita consumption of apples in Italy has risen from 17.7 kg to 20.1 kg between 1958 and 1964.

Major varieties of apples grown in Italy (1964) include Imperatore and Morganduft (15%), Stark Delicious (12%), Abbondanza and Belfort (11%), Golden Delicious (8.6%)

and Delicious (6%). The present trend, however, is towards the growth of more and more Delicious varieties which are in greater demand in export markets.

Tomatoes. Among vegetable crops grown in Italy, tomato is the most important, its production rising from 2.42 million tonnes in 1960.to 3.17 million tonnes in 1965 and 3.46 million tonnes in 1966. Tomato is an important crop both for sale in fresh form as well as for processing purposes. Italians consume large quantities of fresh tomatoes, per capita consumption rising from 17.8 kg to 36.0 kg between 1952 and 1963. The rising trend is likely to continue in the coming years.

Of the total production of 2.95 million tonnes in 1964, 1.1 million tonnes were processed thus showing a processing utilisation of 38% which is considered high. Fresh tomato exports amounted to 48,100 tonnes during the same year, the remaining being consumed locally in fresh form. It would thus apper that over 65% of the tomato crop is consumed locally in fresh form. It may be indicated that Italy is one of the most important suppliers of tomato products to the European markets.

Horticultural Development in Italy

Italian horticultural industry being the largest in the whole of Europe, dominated the European fruit and vegetable market until about 1960. Italy now faces increasing competition in Europe, the natural market for its

products. The predominating position held by Italy for a number of years, is being challenged by various countries of the world which are using advanced scientific methods of cultivation. Some of the major problems faced by the industry which are acting as impediments to increased exports are detailed below:

1. The quality of produce grown presently in Italy is considered relatively inferior. Consumers all over the world demand superior quality products which are increasingly being supplied by countries like USA, Israel and Australia. There have been complaints for instance, about the size of Italian oranges and the pigmented colour of their skin. The Survey revealed that Italian pale varieties are too bitter and the blood varieties too soft. Sicilian oranges, however have excellent properties but suffer from lack of standardised packing and grading. The major varieties of apples like Morganduft and Abbondanza in Italy, on the other hand are no longer in demand in the world markets.

2. Domestic consumption of fruits and vegetables in Italy is very high and very small supplies are available for export. It is reported that the internal demand is so strong that the return on domestic sales are normally higher than export earnings thus rendering exports uneconomic. It may be indicated, for instance. that while overall horticulture exports in 1966 rose over the preceding year by 8.3% in volume and 7.3% in value, a detailed analysis indicates that fruit exports rose only by 11.3% in value compared to an increase of 16.9% in volume, thus reflecting a declining trend in the export prices of Italian products.

3. Cost of production in terms of labour, packing, grading and transportation is increasing rapidly in view of the rising standard of living. The products of Italian origin are thus becoming uncompetitive in the world markets, which are today characterised by intense competition.

4. Another serious problem relates to the operation of innumberable individual exporters in Italy with small size operations. It was, for example, indicated that 83% of the fruit exporters account for only 16.4% of the total exports on an average every year. The operation of a large number of small business houses are creating problems in terms of standardisation and quality control, and unnecessary inter se competition among Italian exporters in foreign markets.

5. Resulting from the large number of operators in the marketing of fruits and vegetables, the distribution costs in Italy are relatively high. A Survey conducted by the Government of Italy on domestic distribution revealed that distribution expenses account for 56% of the retail prices of fresh fruits and vegetables. Wholesale and retail marketing is not run on organised lines and growers' organisations are conspicuous by their absence. Further there is no healthy rapport between growers and canners which makes the task of advance planning difficult.

The Government of Italy is keenly aware of these problems and is taking suitable steps to put the industry on a sound footing. The draft Economic Development Programme for 1965-69, approved by the Government of Italy in 1965, aims at increasing the agricultural production with a view

to meeting the rising domestic demand and exapanding exports. According to the plan projections, the horticultural sector would account for 36% of the total value of agricultural production by 1973. The Government is also encouraging the establishment of associations and cooperatives for streamlining the marketing of horticultural produce in Italy. A large number of units are likely to be set up in the processing sector mainly for citrus fruit where the Italian items are reputed for superior quality. Efforts are also contemplated to grow improved and cannable varieties of apples, peaches and oranges so that the future composition of supplies meets the requirements of foreign buyers. The Government of Italy is following a policy of direct assistance and financial incentives for modernising the pattern of production and marketing of fruits and vegetables. It is estimated that the government will invest during 1965-69 an amount of L 2,560 billion ($ 4.12 billion) on the overall agricultural production in the country, of which L 560 billion ( $ 903.22 million) will be devoted to the development of infrastructure.

Exports

Fresh Fruits. Total exports of fresh fruits amounted to 1.72 million tonnes ($ 258.10 million) in 1964 rose to 1.80 million tonnes ($ 301.7 million).

Besides citrus, which constitutes the most important export item in Italy's trade, the other fruits include table grapes, peaches, apples, pears and apricots. Exports of these major items are given in the following table. Complete details on the exports of Italian fruits and vegetables Volume III, Table A-3.3 of the Report.

## Exports of Major Fresh Fruits[5/]

(Thousand Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Citrus | | |
| Oranges | 200.0 | 122.3 |
| Lemons | 335.6 | 332.9 |
| Mandarins | 24.6 | 26.6 |
| Other citrus fruit | 0.9 | 1.3 |
| Apples | 487.2 | 492.1 |
| Peaches | 224.6 | 269.4 |
| Pears | 130.8 | 242.8 |
| Apricots | 11.0 | 9.4 |
| Cherries | 19.6 | 25.5 |
| Grapes | 215.0 | 240.0 |
| Total (including others) | 1,688.0 | 1,804.0 |

It would appear from the above that apples constitute the most important export item in the horticultural trade of Italy. Exports rose from about 487,200 tonnes in 1965 to 492,100 tonnes in 1966 reflecting a marginal increase over the period. It is understood that exports were higher by about 3% in 1967 over the previous year. Among citrus fruits, lemons hold the leading position, though there was a marginal decrease during 1965-1966. The sharp decline in orange exports witnessed in the above table has been mainly attributable to the stiff competition from Israel Spain and Morocco, and the growing demand for

5/ Annual Agricultural Year Book of Italy, and National Institute of Agricultural Economics, Rome.

Blond as against Blood varieties, which account for the largest proportion of Italian production.

Apples are mainly directed to West Germany, Austria, France, and UK, West Germany constituting the most important buyer. Small quantities of cider apples are also exported from Italy mainly to West Germany and Switzerland.

Italian peaches are supplied mainly to West Germany, Switzerland, Austria, France and UK, West Germany accounting for approximately 50% of the total exports during 1966. West Germany and UK have been increasing their purchases of Italian peaches from year to year. Swiss imports, however, seem to have declined marginally in 1966 over 1964.

Pears exports have also been rising continuously except in 1965. Italian pears are mostly bought by West Germany, France, UK and Australia.

Italian oranges are mainly exported to the neighbouring European countries, major among them being West Germany, Switzerland and Austria. Mandarin exports have been registering a considerable rise during 1965-66. They are increasingly being preferred all over Europe. West Germany accounted for about 55% of the total exports followed by Switzerland, Austria and Netherlands.

Italian lemons, known for their superior juicy quality, are exported in fairly large quantities mainly to European countries, both Eastern and Western. During 1966 West Germany was the principal buyer accounting for

over 30% of the total exports followed by France, UK, Austria and Switzerland. USSR and Poland comprise the other important markets. Discussions revealed that Italian lemons will be increasingly exported to East European countries in the coming years.

Exports of table grapes have been continuously rising and are exported principally during July 15 and October 31 every year. In 1966, for instance, West Germany took over 50% of the total Italian exports, the remaining being shared among Belgium, Switzerland and Austria. Exports of table grapes unaffected by bad crop conditions have risen by about 15% during 1967.

Fresh Vegetables. Exports of fresh vegetables have been continuously rising from 540,000 tonnes in 1964 to 789,000 tonnes in 1966.

Potatoes, cauliflowers, salad type vegetables, carrots, tomatoes, onions, pumpkins, beans and spinach constitute the major vegetable crops exported from Italy. Detailed breakdown on vegetable exports during 1964-66 has been furnished at Volume III, Table A-3.3 of the Report. Exports of some of the major items are given below:

Exports of Major Fresh Vegetables 6/

(Thousand Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Potatoes | 232.8 | 251.2 |
| Cauliflowers | 150.9 | 130.3 |

(Contd. next page)

6/ Annual Agricultural Year Book of Italy, and National Institute of Agricultural Economics, Rome.

| | 1965 | 1966 |
|---|---|---|
| Salad type of vegetables | 86.4 | 86.0 |
| Onions | 41.7 | 62.5 |
| Carrots | 28.2 | 52.2 |
| Tomatoes | 32.9 | 37.8 |
| Total (including others) | 708.0 | 789.0 |

In addition to the above vegetables, asparagus, peppers, spinach and pumpkins are also exported in substantial quantities from Italy. Potatoes constitutes the largest volume item, exports having risen by 32% during 1965 and 1966, followed by onions ( 50%), caroots, (75%), and tomatoes (15%).

Most of these vegetables are directed to neighbouring European countries, West Germany being the principal buyer.

Imports

As against fruit and vegetable exports of $ 405.78 million in 1966, Italy's imports amounted to $ 112.55 million including bananas, tropical fruits and seed potatoes.

Fresh Fruits. Total fruit imports increased $ 26.10 million in 1964 to $ 66.10 million in 1966. Fruit imports mainly comprise bananas, grapes and tropical fruits including mangoes, guavas, etc. Small quantities of apples, oranges and grape fruits are also imported during the offseason. While detailed import statistics appear at Volume III, Table A-2.3 of the Report, imports of some of the major fruits and given below:

(Contd. next page )

Imports of Major Fruits[7/]

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Bananas | 97.9 | 147.7 | 322.0 |
| Fresh Grapes | 0.9 | 1.9 | 1.7 |
| Grapefruits | 0.7 | 0.9 | 3.4 |
| Pineapples | 0.5 | 0.2 | 1.0 |

It is apparent from the above that bananas constitute the largest item among imported fresh fruits in Italy, covering an export of 322,099 tonnes in 1966 as against 97,906 tonnes in 1964. During January-September 1967, imports amounted to 249,303 tonnes, thus indicating that Italy constitutes a growth market for bananas. Bananas are mainly supplied by Somalia, Ecuador, French Antilles, Colombia and Ivory Coast. During 1966, for instance, Somalia supplied 26% of the total requirements of Italy followed by Ecuador 25%, French Antilles 8% and Colombia 8%. One important development relates to the fact that French Antilles which entered the Italian banana market recently, has improved its supplies from 17,255 tonnes in 1965 to 27,884 tonnes in 1966.

Grapefruits, the imports of which have been continuously rising markedly from 679 tonnes in 1964 to 3,415 tonnes in 1966 and 3,816 tonnes in 1967 (January-September) are mainly supplied by Israel.

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7/ Central Institute of Statistics, Rome, Italy.

Small quantities of fresh grapes during off-season, i.e. November to July, are also imported principally from Spain. Mangoes and guavas of about 10 tonnes were also imported in 1966.

Fresh Vegetables. Total vegetable imports amounted to $ 46.45 million during 1966 as against $ 30.40 million in 1964. Seed potatoes which constitutes the most important items of import are supplied principally by Netherlands, Federal Republic of Germany, Canada, Poland and Denmark. Netherland leads the market with a share of 59% followed by France 12% and West Germany 10% in 1966. Small quantities of various other varieties of vegetables are also imported during the offseason.

It would be seen from the above that Italy offers limited possibilities for imported fresh fruits and vegetables with the sole exception of bananas, seed potatoes and certain off-season vegetables including tomatoes, lettuce, etc. Small quantities of mangoes are also imported from South Africa.

Import Policy and Regulations

Except for certain health regulations, the Government of Italy does not impose any specific restrictions on the imports of fresh fruits and vegetables. EEC regulations, as in other member countries, are enforced in Italy. Details regarding health regulations and tariff schedules appear at Volume V, Chapter 4(c) and Chapter 7(c) of the Report.

## B. Processed Fruits and Vegetables

### Market Size

The apparent consumption of processed fruits and vegetables between 1964 and 1966 was as follows:

Apparent Consumption of Processed Fruits and Vegetables 8/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits (including jams and juices) | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 273.9 | - | 517.7 | - |
| Imports | 13.0 | 1.90 | 10.9 | 2.40 |
| Exports | 117.6 | 15.90 | 230.0 | 61.10 |
| Apparent Consumption | 169.3 | - | 298.6 | - |
| Per Capita Consumption (kg) | 3.2 | - | 5.7 | - |

The aggregate apparent consumption of processed fruits and Vegetables was of the order of 467,900 tonnes over 1964-66, the latter accounting for 64%. Italy, with exports of about 347,600 tonnes, is a net exporter, imports constituting 6% of the total trade.

Product-wise consumption in 1964 and 1966 has been indicated below:

(Next page)

8/ Foreign Trade Statistics of Italy and Italian Food Industry Association, Rome.

## Consumption of Processed Fruits and Vegetables 9/

(Thousand Tonnes)

| | 1964 | | | | 1966 | | | |
|---|---|---|---|---|---|---|---|---|
| | Production | Imports | Exports | Consumption | Production | Imports | Exports | Consumption |
| Canned Fruits | 100.5 | 10.9 | 94.2 | 17.2 | 92.1 | 16.7 | 96.9 | 11.9 |
| Jams, Paste and Jellies | 45.0 | 1.1 | 0.8 | 45.3 | 49.0 | 1.9 | 4.1 | 46.8 |
| Juices and Nectars | 128.0 | 1.7 | 53.0 | 76.7 | 131.0 | 2.6 | 64.6 | 69.0 |
| Tomato Products | 450.0 | 1.3 | 229.9 | 221.4 | 447.0 | 0.2 | 246.7 | 200.5 |
| Vegetable Products (others) | 67.7 | 11.9 | 26.5 | 53.1 | 73.9 | 15.2 | 32.0 | 57.1 |
| | 791.2 | 26.9 | 404.4 | 413.7 | 793.0 | 36.6 | 444.3 | 385.3 |

It would be noticed from the above that the total consimption of processed fruits and vegetables has declined from about 413,700 tonnes in 1964 to 385,300 tonnes in 1966. Though Italy is one of the leading canned food producers in the world, she registeres a very low per capita consumption for canned fruits and vegetables

### Production

Italy constitutes one of the major suppliers of processed fruits and vegetables to the European markets. There are approximately 1,400 canning units operating in the country providing employment for 25,000 persons. The industry is highly fragmented with most of the units running on medium and small scale and

9/ Foreign Trade Statistics of Italy and Italian Food Industry Association, Rome, Op.cit.

widely distributed all over the country. Canneries, being dependent upon domestically grown fresh produce, are mainly located in the growing areas. Main areas of industrial concentration thus include Emilia Romagna around Parma, Piacenza, Balgona, South of Naples and Feirara. Aggregate investment in the industry was estimated to be around L 1,000 million ($ 2.41 million).

Processed Fruits. While detailed statistics on the production of processed fruits and vegetables appear at Volume IV, Table B-1.3 of the Report, the following table presents the production of major products during 1964-65:

Production of Major Processed Fruits 10/

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Peaches | 34,500 | 25,000 | 20,500 |
| Pears | 17,500 | 14,000 | 21,000 |
| Cherries | 4,500 | 3,200 | 3,000 |
| Apricots | 1,500 | 2,500 | 2,000 |
| Mixed Fruits | 5,500 | 6,800 | 7,000 |
| Others | 1,500 | 1,500 | 1,500 |
| | 65,000 | 53,000 | 55,000 |
| Cherries in brine | 27,000 | 27,000 | 26,000 |
| Derivatives including Peels etc. | 12,650 | 12,000 | 12,500 |
| | 39,650 | 39,000 | 38,500 |

Peaches and pears constitute the major canned fruits produced in Italy. While the production of peaches declined from 34,500 tonnes in 1964 to 20,500 tonnes in 1966, pears rose in

10/ Italian Food Industry Association, Rome, Op. cit.

importance, from 17,500 tonnes to 21,000 tonnes over the period. Considerable quantities of pears are grown in Italy, crop in 1966 being around 1.24 million tonnes. However, only properly shaped Bartlet pears, which can be processed on FMC slicers, are used for canning purposes. Italian canned pears are reported to be of superior quality both in respect of consistency and taste. Prices of Bartlet pears to the industry are reportedly high due to the rising domestic consumption in fresh form and the industrial prices are almost at par with prices quoted for fresh produce. Discussions indicated that average seasonal price paid by canneries was around L 82 per kg. during 1967 against L 60 in 1966. Production of canned pears declined considerably in 1965, owing to inadequate crop resulting in lower level of production of canned pears during the year.

Production of canned peaches, mainly Yellow Clingstone variety, declined from 34,500 tonnes in 1964 to 20,500 tonnes in 1966. Efforts are being made for expanding the production of peaches in Italy. The Survey indicated that in view of the shortage of peaches in Italy, some of the canneries imported peaches in bulk from South Africa and repacked them in Italy for sale under their own brands during 1965-66. Efforts are currently being made to expand the cultivation of Yellow Clingstone peaches, and it is hoped that canned peaches production will multiply in the canning years.

Other Fruits. In addition to peaches and pears, production is also undertaken of canned cherries, apricots, fruit cocktails and blended fruits. Considerable production of semi-processed fruit items is also being done in Italy comprising mainly cherries in brine and peels etc. of citrus fruits. For instance, during 1966 the production of cherries in brine was around 27,000 tonnes and that of derivatives including citrus peels etc. 12,000 tonnes.

The total gross production of the food canning industry was around L 140 billion in 1965 which marked a rise of 150% over 1956.

Trade predicts that in view of the considerable export potential available for this sector, increasing investments are expected leading to the broadening of production-base of the industry. Though presently the consumption of canned fruits is not considerable, indications are that with growing urbanisation in the country coming years would show rising consumption of canned fruits. Modern large scale canneries have recently been established in Italy particularly in the Po Valley area which are expected to facilitate the production of superior quality products in Italy.

Jams, Jellies & Fruit Paste. Italy manufactures considerable quantities of jams, jellies and fruit pastes, the production of which has been rising steadily over the past three years, rising from 45,000 tonnes in 1964 to 49,000 tonnes in 1966. According to trade circles, jams and jellies are consumed in large quantities in Italy and it is in this area that the growth potential is likely to be spectacular. Out of the total production of jams and jellies in 1966, approximately 88% was consumed within the country. Major jams and jellies produced in the country comprise cherries, apricots, peaches, oranges, mixed and miscellaneous fruits. The following table gives the percentage of production by types of jams manufactured during 1966:

Production of Jams by Varieties 11/

| Item | % |
|---|---|
| Cherry | 28 |
| Apricots | 23 |
| Peaches | 18 |
| Oranges | 3 |
| Mixed | 8 |
| Miscellaneous | 20 |

11/ Food Industry Association, Rome, Op. Cit.

Mention may be made that the highest rise has taken place in the production of miscellaneous fruits and mixed fruit jams, their production rising from 1,800 tonnes and 2,700 tonnes to 6,370 tonnes and 3,920 tonnes respectively during 1964 and 1966. The production of jams made out of cherries, peaches, etc. declined considerably over the period. Production of jams and jellies over 1964-66 is presented below:

Production of Jams and Jellies 12/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Cherries | 16,650 | 17,940 | 13,720 |
| Apricots | 10,800 | 10,120 | 11,270 |
| Peaches | 9,000 | 8,280 | 8,820 |
| Oranges | 2,250 | 2,300 | 2,940 |
| Plums | 900 | 920 | 980 |
| Blackberries | 900 | 920 | 980 |
| Mixed | 2,700 | 2,300 | 3,920 |
| Others | 1,800 | 3,220 | 6,370 |
| Total | 45,000 | 46,000 | 49,000 |

Fruit Juices and Nectars. Production of fruit juices and nectars has been substantial in Italy, the total production rising from about 128,000 tonnes in 1964 to 131,000 tonnes in 1966. The major fruit juices manufactured in the country comprise citrus, apricot, pear, peach, and mixed fruit juices. While in 1966 the total production of citrus juices was around 72,000 tonnes, the other fruit juices accounted for the remaining 59,000 tonnes.

12/ Food Industry Association, Rome, Op. cit.

Among non-citrus juices, the shares held by various juices in 1966 was as follows:

Non-Citrus Juice Production 13/

| Item | % |
|---|---|
| Apricot | 30 |
| Pear | 27 |
| Peach | 27 |
| Others | 16 |

Shares of these fruits are reported to have remained fairly constant over 1964-66. Out of a total production of 131,000 tonnes about 53% of juices were sold in the local market, the remaining going to overseas destinations.

Italy has been one of the oldest citrus processing industries in the world. Besides citrus juices, which are exported in large quantities to overseas markets, essential oils of oranges, tangerin, lemon and bergamotto as well as peels in brine and citric acid are produced in the country in commercial quantities. Italy's citrus processing industry is one of the most advanced industries in the world and a large number of modern units have recently been established for the manufacture of concentrated as well as single strength juices meant both for the local as well as export markets. The production of citrus juices over the years 1964-66 is presented below:

Citrus Juice Production 14/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Orange Juice | 24 | 20 | 32 |
| Lemon Juice | 40 | 40 | 40 |
| Total | 64 | 60 | 72 |

13/Italian Food Industry Association, Rome.
14/Ibid

In addition to the citrus juices, commercial quantities of essential oils and other derivatives are also produced in the country as indicated below:

Production of Essential Oils and Derivatives 15/

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Essential Oils | | | |
| Orange | 150 | 125 | 150 |
| Bergamotto | 190 | 190 | 130 |
| Mandarin | 600 | 650 | 550 |
| Tangerine | 80 | 75 | 65 |
| Derivatives | 12,650 | 12,000 | 12,500 |

It would thus be seen from the above that citrus juice industry in Italy is well established and an increasing trade is undertaken in by-products including essential oils and derivatives like peels of citrus fruit.

Processed Vegetables

Tomato Products. Among processed vegetable products manufactured currently in Italy, tomato products constitute the largest volume item. The production of tomato products over the period 1965-66 was estimated by the National Institute of Preserved Food Stuffs and Central Institute of Statistics as follows

Production of Tomato Products 15/

(Thousand Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Tomato Paste | 118.0 | 150.0 |
| Peeled Tomatoes | 320.0 | 270.0 |
| Catsup etc | 12.0 | 16.0 |
| Tomato Juice | 9.5 | 11.0 |
| Total | 459.5 | 447.0 |

15/ Italian Food Industry Association, Rome, Op.cit

It would be seen from the above that peeled canned tomatoes constitute the principal item among tomato products in Italy followed by tomato pastes and concentrates, catsup and tomato juice. While the production of tomato paste rose by 27% over the period, a 16% decline in the production of peeled tomatoes was registered between the years 1965-66. It was reported that the output of canneries during 1966 for canned tomatoes was affected resulting from delay in the maturity of the tomatoes leading to shorter working season. The predominating position held by tomato products in the processed fruit and vegetable sector of Italy is attributed to the growth of sizeable volume of fresh tomatoes in the country. Total production of fresh tomatoes was around 3.46 million tonnes in 1966 as against 2.69 million tonnes in 1963. The production of fresh tomatoes has been rising steadily resulting in increased production of processed tomato products. It was understood during the Survey that the yield per hectare of fresh tomatoes also rose from 21.2 tonnes in 1962 to 26.9 tonnes in 1967 which is regarded as sizeable. The tomato canning units are mainly located in the growing areas. While the canneries manufacturing tomato paste are located in the Po Valley, the peeled tomato producing units are concentrated around Naples. It was, for example, learnt that Naples pack peeled tomatoes amounting on an average to 12 million cases per annum. Production of tomato paste in Northern Italy is now estimated to be around 30,000 tonnes, though existing productive capacity is around 80,000 to 90,000 tonnes. The capacity is not being fully utilised on account of the fact that Italy has been gradually losing her concentrated tomato products markets abroad to Portugal and Bulgaria owing to the rising cost of production in the country. A number of tomato concentrate units are reported to have been closed down in the North of Italy during the recent years.

The total consumption of tomato products during 1966 was around 200,000 tonnes as against the total production of 447,000 tonnes, thus reflecting a 44% disposal in the home market. The internal consumption for tomato products has been stagnant over the years at a night level of 200,000 tonnes. It was also reported that consumption of canned tomatoes is notably high in Central Italy where 18% of the total population accounts for nearly 33% of the total retail market for tomato products. The major national brands are mostly sold in North of Italy and 'Cirio' reportedly accounts for 15 to 20% of the market in this area. According to a survey recently undertaken by the Fruit Preservers Association of Italy, the market share in respect of canned peeled tomatoes for major brands was as follows:

Brandwise Shares of Peeled Tomatoes[17]

| | |
|---|---|
| Cirio | 10% |
| De Rica | 4% |
| Star | 4% |
| Arrigoni | 3% |
| Others | 79% |
| Total | 100 |

It would thus appear that in tune with the fruit canning industry, tomato production is also very widely spread and a number of small units operate in this sector.

Tomato concentrates which rank second among tomato products, were produced to the extent of 150,000 tonnes in 1966. It was learnt that the consumption of tomato

17/ Field Survey

concentrates is very high in Central and Southern Italy, accounting for approximately 60% of the total consumption in the country. This is attributable to the rising consumption of accompanying sauces, which include a very high usage of tomato concentrates. It is interesting to note that tomato concentrates are mainly utilised by lower income groups due to price considerations, while peeled canned tomatoes are more popular among high income groups. The market is divided among a number of manufacturers, prominent among them being Cirio, De Rica, Star, and Arrigoni. Though Cirio is reported to be the most popular brand, its share does not exceed 10% of the total market.

Tomato concentrates in Italy are generally produced in three varieties: single, double and triple concentrates, the largest consumption being of double concentrates. The difference in these varieties relate to the percentage of tomato in dry weight, 24 to 26% for single; 28 to 30% for double and 36% for triple. They are principally sold in cans and tubes ranging from 100 gm to 10 kg. While the larger sizes are required for use by catering establishments and processors abroad, small sizes are sold among house-hold consumers. The Survey has revealed the following composition of timato concentrate sales by type of containers:

Packwise Sales of Tomato Concentrates[18/]

| Backage | % |
|---|---|
| Barrels | 8 |
| 5 kg cans | 38 |

(Contd. next page )

18/ Italian Food Industry Association

| | % |
|---|---|
| 10 kg cans | 4 |
| 1 or 2½ kg cans | 6 |
| ½ kg cans | 7 |
| 100 gm cans | 13 |
| 200 gm cans | 4 |
| 100 gm tube | 8 |
| 200 gm tube | 7 |
| 150 gm tube | 5 |

Tomato Juice. The production of tomato juice, as indicated above, has not been considerable, rising from 9,500 tonnes in 1964 to 11,000 tonnes in 1966. Most of the tomato juices produced in the country are exported and limited quantities are consumed locally. Tomato juice is packed both in cans and bottles and Cirio, Arrigoni, Colombgni and De Rica constitute the leading brands packed in the country. Being popular among high income groups consumption of tomato juice in the country is very limited and the trade does not expect any rapid expansion domestically. Mention may be made that tomato juice is mostly manufactured by the units engaged in the production of other tomato products including canned peeled tomatoes and tomato concentrates.

The brief analysis given above indicates that tomato products constitute one of the major products of the Italian canning industry. The industry has been facing serious export problems on account of relatively high cost of production in the country. Export prices had thus to be subsidised by the grant of EEC subsidies, from September 1, 1967. The subsidy is of the order of 18% of the invoice value for peeled tomatoes exports to USA, UK and Kenya, Switzerland, Denmark, Norway and Sweden and 15% for tomato juice exported to UK.

They will remain in force till December 31, 1969. It is believed that these subsidies have marginally strengthened the position of Italian tomato products in the world market in terms of price competition accruing from countries including Bulgaria and Portugal whose prices are relatively lower.

Discussions with the trade indicated that the industry's problems cannot be solved by temporary measures like the grant of subsides as tomato growing is still run on conservative and traditional lines. Unless mechanical harvesting and modern production techniques are increasingly utilised, costs are unlikely to be brought down. Steps are being taken to modernise cultivation and manufacturing practices, it will be sometime before Italian products can dominate the European market for tomato products.

Other Vegetables. Considerable quantities of fresh vegetables are grown in Italy, which have led to the establishment of a well organised canned vegetable industry in the country. With the exception of tomato products, canning of vegetables is not undertaken on the same scale as processed fruits. The main vegetable producing areas are in the south around Naples, where mild climate facilitates all-the-year round cultivation of early and late varieties of different kinds of vegetables crops. In North Italy, cultivation is limited to late spring and summer crops. Peas and green beans of canning varieties, however, are grown in the Po Valley in the north of Italy. Exports prices, being uncompetitive production caters mainly to the home market.

The canning of vegetables in Italy has been of two varieties, those canned in natural juice and those in oil, vinegar, or pickles. Principal products include French beans, peas in natural juice, gherkin, cauliflower, mixed pickled vegetables, artichokes and onions. Production of processed vegetables during 1964-66 was as follows in Italy.

Production of Processed Vegetables[19/]

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Asparagus | 900 | 1,000 | 1,000 |
| Cucumbers in brine | 2,200 | 2,500 | 2,500 |
| Cabbage | 3,400 | 3,400 | 3,400 |
| Gherkin | 5,000 | 2,000 | 4,000 |
| Onions in Vinegar | 5,200 | 5,000 | 5,000 |
| French Beans | 5,000 | 5,500 | 5,500 |
| Haricort Beans | 4,000 | 5,000 | 5,000 |
| Salad | 8,000 | 8,500 | 8,500 |
| Olives | 4,200 | 4,200 | 4,200 |
| Peppers in Oil | 3,500 | 2,500 | 2,500 |
| Peas | 24,000 | 27,000 | 27,000 |
| Spinach | 500 | 300 | 300 |
| Artichokes | 1,800 | 3,000 | 5,000 |
| Total | 67,700 | 69,900 | 73,900 |

There was a marginal rise of 8% in the production of canned vegetables between the years 1964-66. Except for peas and artichokes, where substantial rise took place, the

19/ Italy Food Industry Association, Rome

production of other vegetables remained stagnant owing to the high prices of fresh vegetables. Exports are not considerable and a major proportion of the domestic production is consumed in the home market. (The total consumption for canned vegetables was only 60,000, which is a very low figure for a population of 51 million).

Exports

Exports of processed fruits and vegetables from Italy constitute a significant proportion of the domestic production. Aggregate exports rose from 404,400 tonnes in 1964 to 444,300 tonnes in 1966. Exports comprise mainly tomato products, juices and nectars, processed vegetables, jams, jellies, marmalades and fruit pastes, while detailed trade statistics appear at volume IV, Table B-3.3 of the Report, exports of major products between the years 1964-66 are summarised below:

Exports of Major Processed Fruits and Vegetables[20/]

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Tomato Products | 229.9 | 240.5 | 246.7 |
| Canned Fruits | 94.2 | 87.6 | 96.9 |
| Juices and Nectars | 53.0 | 49.5 | 64.6 |
| Vegetable Products | 26.5 | 28.7 | 32.0 |
| Jams, Jellies and Marmalades | 0.8 | 2.4 | 4.1 |
| Total | 404.4 | 408.7 | 444.3 |

20/ Italy Food Industry Association, Rome, Op.cit

Tomato Products. Tomato products accounted for 54.5% of the total exports of canned fruits and vegetables in 1966 against 56.5% in 1964. Exports of other items were not considerable and were far behind the tomato products in terms of export performance.

Peeled tomatoes are exported mainly to UK and USA who shared 83.9% of total exports between themselves during 1966 as against 87% in 1964. Tomato paste is imported mainly by West Germany, UK, USA and Saudi Arabia. While exports to UK, USA, West Germany and Saudi Arabia rose considerably, shipments to Kuwait, Aden and Switzerland declined over the period 1964-66. The rise in exports to Saudi Arabia was most remarkable rising from 8,863 tonnes in 1964 to 18,280 tonnes in 1966, giving her second position among the buyers of Italian tomato paste, next to West Germany. Export of tomato juice which is of superior quality, more than doubled from 3,741 tonnes to 8,640 tonnes between 1964 and 1966. West Germany and UK consistitute the principal buyers of over 60% of the total shipments to foreign markets.

Juices and Nectars. Exports of fruit juices and nectars which account for over 50% of the total production in the country have been steadily rising, from 53,000 tonnes in 1964 to 64,600 tonnes in 1966. Apparent consumption had, however, declined from 76,700 tonnes in 1964 to 69,000 tonnes in 1966, against the rise in production from 128,000 tonnes to 131,000 tonnes between these years. Among juices exported to overseas markets, orange juice and lemon juice without sugar, other citrus juices, apple and pear juices,

grape juice and concentrated juices of citrus constitute the major items. Following table presents the exports of some of the important fruit juices of Italy finding increasing markets abroad:

Exports of Major Fruit Juices[21]

| | 1964 | 1965 |
|---|---|---|
| Grape Juice of specific gravity exceeding 1.33 at 15°c | 14,805 | 14,474 |
| Concentrated Grape Juice | 808 | 1,020 |
| Orange Juice without sugar | 4,799 | 4,424 |
| Lemon Juice without sugar | 5,520 | 5,851 |
| Apple and Pear Juice | 5,515 | 3,611 |
| Grape Juice of specific gravity 1.33 at 15°c | 4,244 | - |
| Citrus and Lemon Juice concentrates | 5,853 | 7,465 |

The above mentioned items accounted for more than 70% of the total exports between 1964 and 1966. It would be seen that exports of concentrated juices of citrus variety have multiplied rapidly to meet processing and re-packing requirements. Recently, however, Italy has had to face severe competition from other citrus juice producing countries like Israel, Morocco and Argentina, whose prices are relatively lower.

21/ Foreign Trade Statistics of Italy.

Citrus Juices. Principal buyers of orange juice without sugar include West Germany, UK, Netherlands and Austria. While exports to West Germany and Austria have been rising, supplies to UK, Netherlands, Czechoslovakia, USA and Denmark have been on the decline. Lemon juice is mainly bought by UK, East Germany and Czechoslovakia, accounting for approximately 40% of the total exports over 1964-66. In respect of other juices, West Germany appears to be the single important buyer followed by Switzerland and UK. Sweden has recently been buying considerable quantities of citrus juices without sugar from Italy. It was also indicated that the concentrated juices are mostly shipped in barrels of 50 gallons (250 kg each) as well as smaller cans of 3 kg.

Jams and Jellies. It was indicated earlier that considerable production exists for jams and jellies in Italy, the total production in 1966 being around 49,000 tonnes. Major proportion of jams and jellies manufactured in Italy is consumed in the home market as Italian jams do not compare favourably with those of Switzerland and France. For instance, the total exports were only 4,000 in 1966 tonnes as against 38,000 tonnes in 1964. Though a marginal increase was discernible, Italian jams in general are not popular among European consumers. West Germany is the most important buyer of Italian Jams, Jellies and fruit pastes.

Canned Fruits. Canned fruit production in Italy has declined from 100,500 tonnes in 1964 to 96,900 tonnes in 1966, owing to the fluctuations in supply as weel as the high prices of fresh fruits in the country. Major fruits canned in the country include cherries, pears, apricots, peaches and mixed fruit cocktails and salades. The Survey

revealed that 94% of the local production flows to overseas markets. In 1966, for instance, exports exceeded production by about 4,000 tonnes on account of the stocks from the previous year. Consumption of canned fruits on the whole, is not considerable as it stood at 11,000 tonnes only for a population of 52 million people.

Italy has been able to build up considerable exports of its canned fruits during the recent past, its exports rising from 94,000 tonnes in 1964 to 96,000 tonnes in 1966. Major items exported from Italy include apricots, cherries and berries preserved in brine and sulphur waters, dehydrated fruits, peaches, apricots and cherries with added sugar. Cherries preserved in brine and sulphur water is the most important item among preserved fruits going to overseas markets. Exports of cherries and apricots in brine, were of the order of 27,000 tonnes and dehydrated fruits 2,152 tonnes in 1966. Among fruits preserved in sugar, peaches take the pride of place with exports reaching 3,513 tonnes in 1966.

Exports of pears and miscellaneous fruits like fruit cocktails have also been considerable. Fruit cocktails were exported to the tune of 27,613 tonnes in 1966. Mention may be made that Italian peaches, apricots, cherries and fruit cocktails are gaining increasing consumer acceptability among the neighbouring European countries.

While cherries are principally bought by France, peaches in sugar are mainly supplied to West Germany, UK, Norway and Spain. Italian cherries in syrup are reported to be quite popular among German and Swiss consumers.

Fruit cocktails, one of the most important items among canned fruits exported currently from Italy, are principally imported by West Germany, UK, USA, France and Belgium. West Germany's share of the total exports of fruit cocktails was slightly less than 50% while supplies to UK approximated to 26% of the total Italian exports.

It would appear from the above that the canned fruits of Italy are mainly sold in the neighbouring markets, particularly West Germany, UK, Switzerland, France, Belgium. It is also indicated that a major proportion of Italian exports are directed to EEC countries, where they enjoy preferential tariff treatment. Despite concessional tariff enjoyed by Italian products, the Australian canned items have been able to make deep penetration into the European markets in the recent past. Australian products are reported to be relatively lower in prices though their quality is at par with those from USA and Italy. Besides, Australia has been undertaking very aggressive selling among European consumers resulting in expanded sales of their canned fruit items. Kyabram and Artmona brands of Australian canned fruits have gained sizeable consumer following in the European markets mainly at the expense of USA, Italy and France.

Imports

Italy being a major producer of fresh and processed fruits and vegetables, offers a very limited market for imported products. Small quantities of canned fruits, jams, juices and vegetable products are imported into the country; imports in 1964 were merely 26,900 tonnes rising to 36,600 tonnes in 1966. Imports thus constitute a very insignificant proportion of the total Italian consumption of canned fruit

and vegetables, which was around 385,300 tonnes in 1966. Imports of some of the major products during 1964 and 1966 were as follows·

Imports of Major Processed Fruits and Vegetables 22/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Canned fruits | 10.9 | 17.7 | 16.7 |
| Jams, jellies, marmalades and pastes | 1.1 | 1.4 | 1.9 |
| Fruit juices and nectars | 1.7 | 1.1 | 2.6 |
| Tomato products | 1.3 | 2.2 | 0.2 |
| Other vegetable products | 11.9 | 13.2 | 15.2 |

Canned Fruits. It would be seen that canned fruits constitute the largest item among imported fruits and vegetables.

Processed pineapple is the principal item among imported canned fruits and vegetables, imports shooting up from 954 tonnes in 1965 to 2,543 tonnes in 1966. Imports reached 2,057 tonnes during the first nine months of 1967 reflecting the steady rising trend in the demand for pineapples, as against negligible imports during 1964.

USA is the major supplier of processed pineapples to Italy with a share of 12% in 1966. The remaining imports came from a large number of countries including Taiwan, Malaysia, Singapore and Philippines. According to the trade, imports of pineapple slices are likely to grow at a rapid pace, thus indicating a high growth potential for the item in Italy. This is mainly on account of the

fact that Italian consumers are receptive to new items and with per capita income rising rapidly, demand for newer products is likely to be significant in the coming years.

Apricots mainly in containers of 5 kg or more and preserved in alcohol are also imported into Italy for the use of processors. Imports which were around 885 tonnes in 1964 rose to 944 tonnes during the first 9 months of 1967. Spain constitutes the biggest supplier of preserved apricots to Italy. A number of other fruits like strawberries and cherries preserved in alcohol are also being imported into Italy but the volume has been negligible.

Jams and Jellies. Small quantities of juices are imported into Italy. Some juices shown under the 'not classified' category were imported from France to the extent of 1,200 tonnes in 1966. Concentrated juices mainly of deciduous fruits were imported to the extent of 1,443 tonnes in 1966 as against 930 tonnes in 1964. While in 1964, Spain supplied over 50% of these juices to Italy, the market was taken over the extent of 60% by France in 1966 mainly at the expense of Spain and Cyprus. These juices are normally specialities and are packed by well-known firms like Libby's and Del Monte which have built up a limited clientele among the sophisticated Italian consumers.

Vegetables. Imports of processed vegetables rose from 13,200 tonnes in 1964 to 15,400 tonnes in 1966. Capers and olives are bought in considerable quantities, imports having spectacularly increased from 29 tonnes in 1964 to 7,055 tonnes in 1966. The upward trend has been vigorous as in the first 9 months of 1967, imports reached 7,746 tonnes

high. Spain, Greece and Morocco constitute the leading suppliers of capers and olives to the Italian market. Other vegetables included items like asparagus, okra, beans and tropical vegetables. Belgium supplied a major proportion of these vegetables followed by Spain.

Import Policy and Regulations

With the exception of EEC tariff regulations, there are no special restrictions imposed on the imports of processed fruits and vegetables coming into Italy. Duties schedules and regulations presently in force, are given at Volume V, Chapter IV (C) and Chapter VIII (C) of the Report.

NORTHERN SEA
LEEUWARDEN
GRONINGEN
ASSEN
DEN HELDER
ALKMAR
ZWOLLE
HAARLEM
AMSTERDAM
ENSCHEDE
LEIDEN
THE HAGUE
HILVERSUM
UTRECHT
DELFT
ARNHEM
ROTTERDAM
NIJMEGEN
DORDRECHT
S-HERTOGENBOSCH
MIDDLEBURG
VLISSINGEN
BREDA
TILBURG
GERMANY
EINDHOVEN
BELGIUM
MAASTRICHT

## 5.4 THE NETHERLANDS

Background

The Gross National Product of the Netherlands, with a population of 12.5 million, was reckoned at Guilders 61.7 billion ($ 16.9 billion) during 1966. The total private consumer expenditure during 1966 was Guilders 43.4 billion ($ 11.9 billion) of which food approximately accounted for 21.9%. Consumer expenditure on fruits and vegetables, both processed and fresh, accounted for 14% of the total consumer expenditure on food during 1966[1].

With well over a billion guilders of foreign trade in fresh and processed fruits and vegetables, Netherlands has gained prominence as the natural supplier and distributor of many of these commodities to the European markets. Dutch horticultural produce, especially vegetables, cultivated round the year under 'glass houses' and 'serre' reaches regularly the farthest points of the European continent. In the matter of supply of seed potatoes to the world markets, she holds virtual monopoly. Again, her position as a distributor of imported fruit and vegetable items to the final consuming points in Scandinavia, Germany and Switzerland through Rotterdam is unique. It is not surprising, therefore, that Netherlands is one of the few net exporting countries of fruits and vegetables in Europe.

During the past five years, Netherlands has been recording a growth rate of 10% per annum in the foreign trade of fruits and vegetables. The rate of increase, however, is more pronounced in imports and exports of fresh produce as

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[1] Statistical Year Book of the Netherlands, 1965-66

compared to the processed items. Between 1965 and 1967, trade in fresh fruits and vegetables increased from $ 301 million to $ 356 million, while that in processed items rose from $ 81 to $ 94 million.

## A. Fresh Fruits and Vegetables

### Market Size

With a per capita consumption of 66.6 kg of fruit and 65.0 kg of vegetables, (excluding potatoes) apparent consumption of fresh fruits and vegetables in Netherlands works out to 1.6 million tonnes per annum during 1964-66. Nearly 65% of Netherlands fresh produce requirements were met by domestic supplies and the residual 35% by imports. Presented below is the apparent consumption of fruits and vegetables (excluding potatoes) in fresh form during the period 1964-66:

Apparent Consumption of Fresh Fruits and Vegetables in the Netherlands 2/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Thousand Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 591 | - | 1,457 | - |
| Imports | 386 | 56,755 | 175 | 18,080 |
| Exports | 144 | 23,426 | 820 | 201,855 |
| Apparent Consumption | 833 | - | 812 | - |
| Per Capita Consumption (kg) | 66.6 | - | 65.0 | - |

2/ OECD Commodity Trade Statistics, Paris

Production. Dutch horticultural production has been consistently developing at the rate of 12% per annum under the stimulus provided by rising exports. Total agricultural exports, for instance, rose by 58% between 1955 and 1966 while horticultural exports increased by 133% during the same period. Consequently there has been a rapid rise in production of fruits and vegetables which accounted for about 20% of the total agricultural production in Netherlands during 1967.

Average annual output of fruits and vegetables between 1964 and 1966 was around 5.5 million tonnes, of which 3.5 million tonnes was accounted for by potatoes, 1.4 million tonnes by vegetables and 0.6 million tonnes by fruit crops as given below:

Production of Fresh Fruits and Vegetables in Netherlands 3/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| **Fresh Fruits** | | | |
| Apples | 515 | 300 | 368 |
| Pears | 146 | 90 | 113 |
| Strawberries | 36 | 32 | 28 |
| Plums | 12 | 11 | 8 |
| Total fresh fruits (including others) | 757 | 469 | 546 |
| **Fresh Vegetables** | | | |
| Potatoes | 4,110 | 2,230 | 3,230(Est.) |
| Tomatoes | 291 | 300 | 297 |
| Cucumbers | 203 | 208 | 227 |
| Onions | 208 | 208(Est.) | 193 |

Contd...

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey countries, Volume III, Table A-1.4, of the Report.

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Carrots | 121 | 105 | 115 |
| Cabbages | 100 | 84 | 84 |
| Total fresh vegetables (including others) | 5,745 | 4,457 | 4,739 |
| Grand Total | 6,502 | 4,926 | 5,285 |

Another important characteristic of Dutch horticultural production is that the principal vegetables destined for exports are produced in controlled climatological conditions. Netherlands, the largest hothouse producer, has 6,400 hectares under 'glass' and 'serre'. Growing under these conditions has enabled Netherlands to produce vegetables, round the year, and supply them to the European markets, both in winter and summer months at competitive prices. Significant vegetables items produced in 1967 under 'glass' include tomatoes (297,876 tonnes), cucumbers (227,652 tonnes), carrots (115,960 tonnes), lettuce (97,370 tonnes) and cabbages (84,474 tonnes). Open field cultivation is mostly devoted to the cultivation of potatoes and onions, whose output was 3.2 million tonnes and 193,000 tonnes respectively, during the same year.

Commercial production of fruits is not so important in the Netherlands as compared to the output of vegetables. Average annual production of fruits was around 600,000 tonnes during the past three years. Important Dutch fruit crops include, apples, pears, plums and cherries, which are cultivated in the open fields, and grapes and strawberries, grown under glass.

Statistics relating to the production of fresh fruits and vegetables in the Netherlands are provided at Volume III, A-1.4, of the Report.

Imports. Tropical and sub-tropical fruits and vegetables, generally, claim a major share of total Dutch imports, as is evident from the table below.

Imports of Selected Fruits and Vegetables into Netherlands 4/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Fresh Fruits** | | | | | | |
| Oranges | 212.7 | 28.7 | 217.2 | 29.5 | 223.2 | 30.8 |
| Mandarins | 12.9 | 2.8 | 10.1 | 2.5 | 9.3 | 2.0 |
| Lemons | 10.1 | 1.6 | 9.8 | 1.8 | 10.1 | 2.5 |
| Clementines | - | - | 2.2 | 0.8 | 6.7 | 1.5 |
| Grapefruits | 12.2 | 1.1 | 12.0 | 1.7 | 15.6 | 0.9 |
| Grapes | 10.9 | 2.7 | 15.1 | 3.2 | 18.1 | 4.3 |
| Apples | 19.4 | 4.1 | 22.2 | 3 8 | 44.7 | 6.7 |
| Bananas | 81.3 | 11.0 | 99.5 | 11.3 | 100.2 | 13.6 |
| **Fresh Vegetables** | | | | | | |
| New Potatoes | 15.7 | 1.3 | 80.3 | 13.8 | 60.8 | 3.1 |
| Onions | 22.6 | 2.0 | 12.2 | 1.1 | 24.8 | 4.1 |

Imports of citrus fruit valued at $ 37.7 million during 1966 was more than 40% of the total imports. Next in importance was bananas with an import value of $ 13.6 million. Other fresh fruits which figure prominently in the Dutch import schedules include apples ($ 6.7 million), pears ($ 2.7 million), peaches and cherries ($ 1.8 million each) and strawberries ($ 1.0 million).

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4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, A-2.4, of the Report

Citrus fruits are mainly supplied by Spain (40%), Morocco (13%), Israel (11%), and United States (10%) to the Dutch market. Off-season imports, however, originate from South Africa, Brazil and Cyprus. As for bananas, Colombia and Ecuador are the principal exporters to this market. Temperate fruits are supplied by its EEC partners.

Exports. Netherlands is among the largest suppliers of fresh vegetables in Western Europe. Annual exports averaged around 1.5 million tonnes during the past three years. Leading items exported during 1967 include potatoes ($ 47.2 million), tomatoes ($ 17.5 million), cucumbers ($ 18.4) and onions ($ 14.5 million). Compared to vegetable supplies, exports of Dutch fruits are quite modest. They averaged at 144,000 tonnes between 1964 and 1966. Apples, pears, grapes and strawberries were the main items of exports. Exports of selected fresh fruits and vegetables are given in the table below.

Exports of Selected Fresh Fruits and Vegetables from Netherlands 5/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Fresh Fruits** | | | | | | |
| Apples | 85.6 | 12.7 | 33.2 | 4.8 | 9.0 | 2.3 |
| Pears | 22.1 | 4.4 | 3.5 | 0.7 | 4.1 | 0.8 |
| Cherries | 9.3 | 4.9 | 4.9 | 2.9 | 7.1 | 3.9 |
| **Fresh Vegetables** | | | | | | |
| Seed Potatoes | 253.2 | 22.3 | 293.5 | 28.5 | 282.1 | 26.6 |
| Potatoes | 372.2 | 19.9 | 244.0 | 16.1 | 382.1 | 20.6 |

Contd...

5/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report.

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Cabbages | 44.6 | 2.4 | 37.9 | 4.3 | 30.4 | 1.6 |
| Tomatoes | 262.0 | 84.7 | 221.9 | 66.0 | 32.9 | 17.5 |
| Cucumbers | 140.2 | 34.3 | 104.1 | 17.3 | 93.2 | 18.4 |

EEC countries, in particular West Germany, have been the natural and most important outlets for Dutch exports. Almost 75% of the vegetables and 90% of the fruits exported from the Netherlands during 1966 were absorbed by these countries. United Kingdom was another important buyer of Dutch fresh produce.

Organisational Pattern

The flourishing export trade in horticultural items is mainly due to a well-knit market organisation (the Co-operative Organisation of Producers for the sale of Fruit and Vegetables) whose primary function is to sell the produce through auctions or Veilings according to the Dutch Clock System. Except for certain vegetable crops grown for processing on the basis of contract cultivation, nearly all fruits and vegetables in Netherlands are sold via the Veilings.

The essential benefits of the Veilings are: 6/

i) the price finds its own level through the market mechanism of supply and demand. This system of sale makes up for the inadequate knowledge of the market among producers and ensures remunerative prices for them. At the same time, the Veilings cannot take a position on the market that would be prejudicial to buyers.

ii) the concentration of all produce supplied, sorted, sized and classified by varieties, enables the buyers to make their choice in

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6/ Production of Fruit and Vegetables in OECD Countries, Netherlands, Paris, 1966

the light of specific requirements, and guarantees producers of the best possible price for all consignments. It is, of course, common knowledge that the type of produce demanded differs according to the market. In private sales, this often leads to non-remunerative prices for types of produce which the buyer cannot use immediately or which he is not specialised to sell. The system of sales through Veilings makes up for this disadvantage.

These two factors have greatly helped the Veilings to achieve their self-assigned target, which is to obtain the best price for producers.

iii) Veilings have a particular role to play in the control of quality and packaging of fruit and vegetables. This control is carried out on the Veilings premises on the basis of standards in force by an inspection service.

iv) All auction centres use returnable packaging which is their property. The members of the Veilings can use this packaging against payment of a deposit and a small fee. When produce is brought to the Veilings already packed in non-returnable packages, as occurs mainly in the case of tomatoes, the Veilings deal with the purchase of such packaging.

v) Veilings which are situated in fruit production areas also possess cold storages facilities, some of which are equipped with facilities for gas preservation. Against payment of a fee, members can store their fruit until they decide to sell it. Cold storage capacity in Netherlands for seed fruit is over 110,000 tonnes. Some producers, exporters, importers and wholesalers also have their own storehouses.

Fruit and Vegetable Board which is an apex organisation of all Veilings (Product schap Voors Groenten en Fruit) inter alia looks after the domestic and export publicity programme

for the horticultural produce. Growers and traders are obliged to remit 0.07% of their total turnover to the Board, which, in turn, spends 50% of the amount so collected on publicity. As for the imported produce, supplying countries publicise their produce through the usual media of trade journals, posters & hoardings and point-of-sale literature.

Import Policy and Regulations

There are no specific restrictions in Netherlands for the import of fruits and vegetables other than the EEC regulations. Import licences, however, are required in most cases. Current tariff rates on imports of fresh produce are given at Volume V, Chapter VII (d), of the Report.

Channels of Distribution

There are about 14,702 retail outlets for fruits and vegetables in the Netherlands. They are mainly serviced by i) two buying associations, EINKABE and SPERWERBOND, ii) the Federation of Consumers Co-operatives, COOP NEDERLAND, iii) Eight International Voluntary chains such as SPAR, VIVO, and TIP, and iv) 500 wholesale importers and commission agents. List of major importers is given at Volume VI of the Report.

Grading and Packing

The Netherlands like other members of the European Economic Community have adopted the OECD Standards and Packaging requirements for fruits and vegetables. All imported produce has to conform to these stipulations (Details of OECD Standards are provided at Volume V, Chapter I and II, of the Report).

## B. Processed Fruits and Vegetables

### Market Size

The apparent consumption for processed fruits and vegetables was as follows during the period 1965-66:

Apparent Consumption of Processed Fruits and Vegetables in Netherlands 6/
(1965-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 182.1 | - | 172.4 | - |
| Imports | 81.9 | 30.70 | 38.2 | 14.40 |
| Exports | 48.4 | 18.20 | 77.5 | 30.40 |
| Apparent Consumption | 215.6 | - | 133.1 | - |
| Per capita Consumption (kg) | 15.5 | - | 10.2 | - |

The average annual consumption of processed fruits and vegetables during 1965-66 has been estimated at 348,700 tonnes, of which fruits represented 215,600 tonnes. Production of processed fruits (including juices, jams and jellies) rose from 177,200 tonnes in 1965 to 187,100 tonnes in 1966. On the other hand, processed vegetables (including soups and soup powders) showed a decline from 197,100 tonnes

6/ Basic Statistics on Processed Fruits and Vegetables, Volume IV, B-1.4, 2.4 and 3.4, of the Report

to 147,800 during the same period, mainly on account of marked fall in the output of tomato products to the tune of 51,000 tonnes.

It can be seen from the above table that whereas Netherlands is a net exporter of processed vegetables, she is a net importer of fruit products.

Production. The Dutch canning industry is very well organised, its production increased from 140,600 tonnes in 1962 to 162,700 tonnes in 1966, Comprising mainly strawberries, blackberries, currents, pears, cauliflowers, peas, carrots, french beans, broad beans and spinach. As indicated earlier, canned vegetables and vegetable soups account for a major proportion of the local production on account of the large availability of various types of vegetables in the country. In respect of fruits, however, the market mainly relies upon imports for items like canned pineapples, peaches, apricots, citrus segments and fruit cocktails, as most of the fruits required for these preparations are not grown in the country. The Fruits and Vegetables Commodity Board of Netherlands gives the following figures for the production and sale of canned vegetables and fruits, which indicates the fluctuations of stocks in the canning factories:

(Next page)

Production and Total Deliveries of Processed Fruits and Vegetables in Netherlands During 1960-61 and 1963-64 7/

(Thousand Litres)

| Year | Fruits (excluding fruit puree) | | | |
|---|---|---|---|---|
| | Production | Total Deliveries (including exports) | Production | Total Deliveries (including exports) |
| 1960-61 | 28,517 | 27,887 | 114,741 | 100,573 |
| 1961-62 | 25,166 | 26,344 | 124,770 | 112,605 |
| 1962-63 | 29,187 | 26,650 | 138,495 | 135,678 |
| 1963-64 | 27,160 | 26,539 | 157,209 | 137,810 |

The deliveries have not kept pace with production in respect of canned vegetables. The position in respect of canned fruits is however different where sales have been generally higher than production and the buoyancy of home demand has been met through imports. Details of production of processed items appear at Volume IV, Table B-1.4, of the Report.

The following table furnishes data on per capita consumption of processed fruits and vegetables. 8/

| Year | Total Processed Vegetables | Gherkins | Peas | French Beans |
|---|---|---|---|---|
| 1961 | 11.22 | 0.47 | 4.67 | 1.80 |
| 1962 | 12.67 | 0.52 | 6.14 | 1.76 |
| 1963 | 14.06 | 1.04 | 5.83 | 2.34 |
| 1964 | 22.48 | 0.72 | 4.42 | 2.12 |

(Next page)

7/ and 8/ Commodity Board for Fruits and Vegetables, The Hague

| Year | Total Processed Fruits | Strawberries | Pears | Peaches |
|---|---|---|---|---|
| 1961 | 0.87 | 0.26 | 0.08 | 0.28 |
| 1962 | 1.33 | 0.28 | 0.30 | 0.41 |
| 1963 | 1.38 | 0.22 | 0.26 | 0.44 |
| 1964 | 1.85 | 0.58 | 0.12 | 0.52 |

Besides indicating the per capita consumption of fruits and vegetables, the above table reflects the consumption trends in major fruits and vegetables consumed in Netherlands. While the per capita consumption of peas has been declining, that of beans and gherkins has risen, during 1961-64. Among fruits, consumption of pears has fallen while that of strawberries and peaches has shown steady rise during the same period. According to the statistics available from the Dutch Fruit and Vegetable Board, per capita consumption of tropical canned fruits rose from 0.90 kg. in 1960 to 1.55 kg. in 1964 and that of pineapples from 0.47 kg. in 1960 to 0.74 kg. in 1964.

Exports. Besides meeting the major proportion of local requirements, Dutch products have been finding their way increasingly to overseas markets. Total exports rose from 123,300 tonnes in 1965 to 128,500 tonnes in 1966. Canned items have. on an average, represented 55% and bulk items (semi-processed) 45%. Processed vegetables and pears are increasingly exported to neighbouring European markets where they have gained adequate consumer acceptability.

Major items among canned fruits and vegetables exported from Netherlands currently include gherkins, cauliflowers, cabbages, jams, jellies, soups, fruit purees, pulps and pears. The table given below indicates the exports of main processed fruits and vegetables during 1964-66:

Exports of Major Processed Fruits and Vegetables 9/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| **Fruits** | | | |
| Fruit Pulp | 14.1 | 13.4 | 12.00 |
| Fruit Juices (Thousand litres) | 13.8 | 16.5 | 11.9 |
| Apples Sauce and other fruit purees | 0.7 | 0.7 | 3.1 |
| Jams, Marmalades, Jellies | 2.6 | 2.8 | 3.5 |
| **Vegetables** | | | |
| Vegetables, semi-finished | 24.5 | 25.5 | 22.2 |
| Salted Onions | 7.5 | 8.6 | 8.5 |
| Salted Cabbage | 3.5 | 3.4 | 3.4 |
| Salted Gherkin | 1.9 | 2.0 | 2.0 |

It will be noticed from the above table that large quantities of Dutch apple sauces were exported to foreign markets during 1964-66, for the manufacture of jams and jellies. Further details on the exports of Dutch processed

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9/ Foreign Trade Statistics of Netherlands, The Hague

fruits and vegetables have been given at Volume IV, Table B-3.4 of the Report.

Imports. The following table indicates the imports of major processed fruits items during the period 1965-67:

Imports of Major Fruit Products[10/]

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | 1967 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Pineapples in syrup | 7,721 | 2,084 | 9,968 | 2,557 |
| Peaches " " | 10,683 | 2,787 | 9,230 | 2,296 |
| Apricots " " | 2,191 | 265 | 1,205 | 314 |
| Pears " " | 441 | 116 | 896 | 249 |
| Fruit Cocktail | 7,368 | 2,897 | 7,908 | 2,970 |
| Strawberries | 1,604 | 580 | 1,710 | 668 |
| Citrus Juices | 5,918 | 3,771 | - | - |
| Unsweetened orange juice | - | - | 9,777 | 5,697 |
| Sweetened orange juice | - | - | 2,102 | 595 |
| Pineapple Juice | - | - | 194 | 55 |
| Tomato Juice | - | - | 458 | 100 |

Besides the above, small quantities of cherries and fruits preserved without sugar including peaches, pineapples and apricots also find their way into the Dutch market.

10/ Foreign Trade Statistics of Netherlands, The Hague

Among canned fruits, peaches are the major items sold in the Dutch market followed by pineapples, fruit cocktails and apricots. Pineapple imports rose by 29% during 1965-67 whereas peaches declined by 15%. Apricots registered a steep fall from 2,191 tonnes in 1965 to 1,205 tonnes in 1967. Fruit cocktails and pears were also imported increasingly.

In 1965, different varieties of juices were imported to the extent of 14,937 tonnes, comprising 5,918 tonnes of citrus juices, 1,214 tonnes of grape juice and 6,905 tonnes of other fruit juices. In 1967, on the other hand, citrus juices imports stood at 12,737 tonnes, comprising 9,777 tonnes of unsweetened orange juice, 2,102 tonnes of sweetened orange juice, 542 tonnes of grapefruit juice and 316 tonnes of other citrus juices. Among citrus juices, the pride of place was occupied by unsweetened orange juice, which accounted for 77% of the total imports of citrus juice during 1967. Other juices included pineapple juice, grape juice, tomato juice, apple and pear juices, total imports having amounted to 11,197 tonnes in 1966. Apple and pear juices were the most important among this group, imports having risen from 5,057 tonnes in 1966 to 8,639 tonnes in 1967.

Peaches. Peaches are mainly imported from USA, Australia, Greece and Taiwan. USA has been continuously losing its hold over the Dutch market for peaches, its share declining from 80% in 1965 to 58% in 1967. Greece, Japan and Spain

have also suffered a set-back in this important European market during the past three years. Australia, on the other hand, has improved her stakes considerably, from negligible exports in 1965 to 30% in 1967. Taiwan's exports rose from 42 tonnes in 1965 to 432 tonnes in 1967. Other countries which have recently entered the peach market in a limited way include China (Mainland) and South Africa. The c.i.f. price of peach (1967) supplies by three major countries are given below:

Unit Prices of Peaches 11/

(Dollar/Tonne)

| | |
|---|---|
| USA | 249.81 |
| Taiwan | 241.46 |
| Australia | 227.39 |

Besides offering competitive price quotations, Australia has been undertaking intensive sales promotion for her products in Dutch market with adequate success.

Pineapples. Pineapples reportedly have gained very high consumer acceptability in Netherlands during the recent past, and during 1967 they outstripped peaches in terms of quantities imported. Taiwan is an important supplier, its share having risen to 45% in 1967 against 39% in 1965. USA constitutes another major source for pineapple products with a share of 25% in 1967. This

11/ Foreign Trade Statistics of Netherlands, The Hague

represented a decline from 1965, when she held 43% share of the market. Philippines improved her position considerably, her stakes rising from 8% in 1965 to 11% in 1967. Ivory Coast too has increased her share spectacularly from about 2% in 1965 to 14% in 1967. Price appears to be the major decisive factor in the sale of pineapple products, as evidenced from the table given below[12]:

Unit Prices of Pineapples
(1966)

| | (Dollar/Kg.) |
|---|---|
| Philippines | 0.32 |
| USA | 0.31 |
| Ivory Coast | 0.25 |
| Taiwan | 0.21 |
| China (Mainland) | 0.19 |

It is indicated from the above that the sucess of Taiwan in the Dutch market for pineapples was mainly on account of lower price quotations. The market for cheap varieties of pineapples is also deemed considerable.

Fruit Cooktails. Fruit cooktails which constitute the third biggest item in Dutch market for canne fruits, are principally supplied by USA, Japan, Australia and Spain. While the US share of the market fell from 57% in 1965 to 50% in 1967, Australia's share was 9% in 1967 as

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12/ Foreign Trade Statistics of Netherlands, The Hague

against nil in 1965. Other countries which improved their position include South Africa, Spain, Israel and China. Here again, price appears to have played an important role in the decline of USA's share of the market; its unit cost was $ 0.36 kg against $ 0.32 kg from Australia during 1967. Unlike pineapples, the difference in prices quoted by various suppliers is not very wide-spread.

Other Fruits. Other important fruit items include apricots, strawberries, cherries and preserved fruits without sugar in bulk containers of more than 5 kg. Strawberries and cherries are mainly supplied by Belgium. In the case of cherries, Yugoslavia entered the market in a big way in 1967 and annexed a share of 35% of the market mainly at the expense of Canada and Italy. Preserved fruits, without sugar coming in containers of 6 kg or more, which are mostly used by processors and catering establishments, were imported as follows during 1965-67:

Exports of Selected Processed Fruits in Bulk Containers 13/

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Apricots | 3,545 | 693 | 3,718 | 765 | 584 | 162 |
| Strawberries | 1,465 | 427 | 392 | 142 | - | - |
| Pineapples | 344 | 87 | 346 | 85 | 388 | 96 |
| Pulps | 265 | 26 | 99 | 20 | 115 | 30 |
| Others | 1,382 | 350 | 1,539 | 428 | 2,491 | 655 |

13/ Foreign Trade Statistics of Netherlands, The Hague

It would be seen from the above that preserved fruits without sugar mainly meant for processors and catering establishments are imported into Netherlands in fairly considerable quantities. While apricots constituted the biggest item in this group during 1965, its position was taken over by other fruits (berries, currants etc) during 1967, imports having declined from 3,545 tonnes in 1965 to 584 tonnes in 1967. Imports of pulps and strawberries have continuously been declining in view of their large availability in Netherlands. Pineapples, however, have been rising in importance owing to the increasing consumer acceptability in the Dutch market. More and more catering establishments and confectioners are using pineapples for the preparation of their products.

Citrus Juices. Netherlands offers a very big market for various types of juices, particularly citrus juices. The citrus juice market of Netherlands has been growing at a rapid rate during the past few years. Orange juices are mostly supplied by Spain, USA, Brazil and Israel. While Israel's share of the unsweetened orange juices fell from 28% in 1966 to 24% in 1967, US's share rose from approximately 8% to 18% over the period. Spain also improved her stakes in the market, imports rising from 777 tonnes in 1965 to 1,355 tonnes in 1967 in respect of unsweetened orange juice. The largest beneficiary in the Dutch market for orange juices has been Brazil which from a mere 4% share of the market, increased her share to 11% in 1967. Likewise, for sweetened orange juices for which the market is very limited, West Germany appears to be leading the market followed by Israel. It was indicated that Israel

recently has not been faring well in the growing Dutch market for citrus juices, in view of the superior quality of orange juices being exported by USA and Brazil. Mention may be made that the citrus juice market in Holland is more or less a concentrated juice market. It has been estimated that about 70% of all the juices imported into Netherlands are in concentrated form. While orange juice represents 95% of the total concentrated juices imported into the market, the remaining 5% is accounted for by lemon juice and grapefruit juice. The juices are normally imported during the period December - April every year.

Other Juices. In respect of other juices, apple and pear juices are the major products imported in increasing quantities by Netherlands. The apple and pear juices are mainly supplied by West Germany, which had a share of 94% in 1967. In respect of pineapple juice, the imports of which were only 194 tonnes in 1967, USA constituted the main supplier with an approximate share of 55% of the market. The other important suppliers include Philippines and Ivory Coast, Philippines's share in 1967 being 23%.

Processed Vegetables. Being an important producer of different varieties of vegetables, Netherlands does not offer much scope in respect of imported processed vegetables. The table given below would indicate the imports of various types of vegetables during 1965-67:

(Next Page)

## Imports of Processed Vegetables 14/

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| White Beans | 7,940 | 1,227 | 6,535 | 1,082 | 8,703 | 1,339 |
| Garden Beans | 6,012 | 21,667 | 3,158 | 956 | 3,486 | 1,110 |
| Garden Peas | 2,417 | 461 | 2,004 | 796 | 4,244 | 852 |
| Dehydrated Onions | 1,827 | 990 | 1,996 | 1,196 | 2,045 | 1,680 |
| Other dehydrated vegetables | 1,363 | 1,738 | 3,245 | 2,423 | 2,165 | 762 |

Dehydrated Onions. Dehydrated onions as would be seen from the above, have been rising in importance during the last three years: imports rose from 1,827 tonnes in 1965 to 2,045 tonnes in 1967. East European countries mainly Hungary, Romania, Bulgaria, Poland and Yugoslavia have made a very successful entry into the Dutch market resulting in reduced share for UAR, which has been the traditional supplier to this market. In particular, Hungary has been offering dehydrated onions at very prices. Dehydrated onion market in Netherlands shows signs of growth and discussions with importers indicated that there is a likelihood of big spurt in the sale of this product. The price competition offered by East European countries, however, is quite intense.

Garden Peas. Garden peas, another important item among processed vegetables in Netherlands are principally supplied by Hungary which has been continuously impro g her share in the market. Imports from Hungary rose from 1,160 tonnes (48%) to 2,821 tonnes (67%) in 1967. Other important suppliers

14/ Foreign Trade Statistics of Netherlands, Op. cit.

of garden peas to the Dutch market include USA and France. It, however appears that the processed vegetable market of Netherlands has been successfully taken over by the East European countries whose products besides being good are very competitively priced.

Garden Beans. In respect of garden beans, Tanzania has been having a monopolistic hold over the market since 1966, when she entered the market for the first time. Imports from Tanzania rose from 1,891 tonnes in 1965 to 2,275 tonnes in 1967. Other suppliers are USA and Bulgaria. Prices of garden beans offered by Tanzania are much lower than those of USA and Bulgaria. For instance, the unit cost per kg of Tanzania in 1966 was approximately $ 0.33 per kg against USA's price $ 0.46 per kg. This would show considerable difference between average c.i.f. prices of beans imported from USA and Tanzania.

Beans of all varieties in canned form constitute a very popular item in all the European countries and particularly so in Netherlands. The other beans which are gaining importance include brown beans, the imports of which in 1967 were around 1,400 tonnes. Most of these beans come from Belgium and Luxemburg, followed by Angola. White beans, the imports of which rose from 4,478 tonnes in 1965 to 8,703 tonnes in 1967, are mainly supplied by Argentina, Romania and in a lesser degree by Bulgaria and USA.

It would be thus seen that the canned vegetable market of Netherlands is gradually being taken over by East European countries.

Channels of Distribution

In tune with the developments taking place in other European countries, the importance of corporate chains is rising in Netherlands and more and more wholesale buying organisations are coming up in for the sale of food items including canned fruits and vegetables. The trend in amalgamation of retail stores, facilitating the creation of larger and fewer retail units is evident from the fact that while in 1950 there were in all 16,928 retail stores selling food items, they reduced to 14,702 in 1962. It is estimated that the retail stores currently number around 10,000 stores.

The major corporate chains operating in the food trade in 1964 in Holland include the following:

Major Corporate Chains in Netherlands 15/

| Chain | Number of Wholesalers attached | Number of Retailers attached |
|---|---|---|
| SPAR | 17 | 2,100 |
| CENTRA | 15 | 1,300 |
| VEGE | 16 | 1,700 |
| VIVO | 35 | 2,100 |
| TIP | 23 | 2,004 |
| GROSKA | 12 | 1,100 |
| KRROM | 16 | 1,200 |
| V.G.O.N. | 18 | 1,200 |

It is further estimated that approximately 65 to 70% of the total food trade in Netherlands is covered by various chains mentioned above. The growing importance of the chains

15/ Field Survey

indicates that a foreign supplier need contact only a few chains to introduce his product.

Import Policy and Regulations

No special restrictions have been imposed in Netherlands on the imports of processed fruits and vegetables expect for EEC regulations. Current tariff rates are given at Volume V, Chapter VII (d), of the Report.

## 5.5 BELGIUM-LUXEMBURG

### Background

With a total population of 9.84 million and a per capita income of $ 1,338, Belgium-Luxemburg offers a large market for various types of food products including fruits and vegetable items. In 1964, expenditure on food items accounted for 28.5% of the total private consumption in Belgium.

Belgium's external trade in fresh and processed fruits and vegetables is estimated at $ 230 million annually. As a purveyor of certain specialised items like chicoree witlof, hot house grapes and tomatoes, brussels sprouts, carrots and turnips and salad-type-vegetables, Belgium has gained a strong foothold in the European markets. On the average, 35% of its fruit and vegetable production is exported annually, in fresh or processed form.

Belgium is equally significant as an importer of fresh and processed fruits and vegetables. It has been estimated that as much as 25% of the total agricultural imports comprise fruit and vegetable items, reflecting heavy dependence on external sources of supply.

### A. Fresh Fruits and Vegetables

### Market Size

According to the Institut National du Statisque, Brussels, aggregate consumer expenditure on fresh horticultural produce in Belgium has shown an average growth

NORTH SEA
NETHERLANDS
GERMANY
FRANCE
OSTEND
BRUGES
TURNHOUT
ANTWERP
GHENT
ROESELARE
YPRES
LOUVAIN
BRUSSELS
HASSELT
TOURNAI
LIEGE
MONS
LA LOUVIER
NAMUR
VERVIERS
CHARLEROI
DINANT
MARCHE EN
BASTOGNE
ETTELBRUCK
ARLON
LUXEMBOURG
ESCH

rate of 5% per annum and in 1966, the total expenditure amounted to $ 483 million. It is evident from the table given below that expenditure on potatoes, temperate fruits and tropical fruits seems to have edged up steeply, during the past few years, as compared to the expenditure on fruits and vegetables.

Consumer Expenditure on Fresh Fruits and Vegetables in Belgium 1/

(Million Dollars)

| | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|
| Vegetables (other than Potatoes) | 179 | 157 | 169 | 175 |
| Potatoes | 72 | 68 | 85 | 115 |
| Tropical fruits | 77 | 87 | 89 | 97 |
| Temperate fruits | 75 | 76 | 93 | 96 |
| Total | 403 | 388 | 436 | 483 |

In terms of volume, apparent consumption of fruits and vegetables in Belgium-Luxemburg, between 1964 and 1966 has been placed at 3 million tonnes per annum with a per capita consumption of 58 kg of fruits and 243 kg of vegetables (Table below).

Apparent Consumption of Fresh Fruits and Vegetables in Belgium-Luxemburg 2/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 316 | - | 2,354 | - |
| Imports | 337 | 63.6 | 386 | 41 |

Contd.

1/ Institut National du Statistique, Brussels
2/ OECD Commodity Trade Statistics, Paris

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Exports | 78 | 13.2 | 351 | 48 |
| Apparent Consumption | 575 | - | 2,389 | - |
| Per Capita Consumption | 58 | - | 243 | - |

Production. Area under horticultural crops in Belgium-Luxemburg during 1965-66 was estimated as 124,000 hectares. About 50% of this area is devoted to potato production, 28% fruit orchards, 17% market gardening, and 5% non-edible horticultural produce. Horticultural production was estimated at 2.5 million tonnes in 1966, of which 88% was accounted for by leguminous crops and the remainder by fruit production.

Production of Fresh Fruits and Vegetables in Belgium 3/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| A. Fresh Fruits | | | |
| Apples | 189 | 176 | 205 |
| Pears | 70 | 45 | 30 |
| Strawberries | 27 | 27 | 31 |
| Grapes | 12 | 12 | 12 |
| Cherries | 25 | 4 | 7 |
| Total fresh fruits (including others) | 368 | 280 | 299 |

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-1.5

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| B. Fresh Vegetables | | | |
| Potatoes | 1,829 | 1,507 | 1,507 |
| Chicoree | 116 | 111 | 88 |
| Tomatoes | 86 | 92 | 75 |
| Carrots | 69 | 69 | 65 |
| Celery | 64 | 67 | 78 |
| Cauliflowers | 62 | 66 | 49 |
| Total fresh vegetables (including others) | 2,601 | 2,283 | 2,180 |
| Grand Total | 2,969 | 2,563 | 2,479 |

Apples, strawberries, pears and grapes are important among the Belgian fruit crops and potatoes, chicoree witlof and other salad-type-vegetables, tomatoes, carrots and cauliflowers in the leguminous produce. Details of Belgian fresh fruits and vegetables production are given at Volume III, Table A-1.5.

Imports. Though bulk of Belgium's fresh fruits and vegetable requirements are generally met by domestic production, imports during 1965-67 period averaged at 809,000 tonnes per annum.

## Selected Imports of Fresh Fruits and Vegetables in Belgium 4/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **A. Fresh Fruits** | | | | | | |
| Oranges | 140.7 | 20.6 | 144.4 | 22.3 | 145.1 | 22.2 |
| Bananas | 79.6 | 9.1 | 98.2 | 10.8 | 93.1 | 10.7 |
| Apples | 51.2 | 0.9 | 50.6 | 1.2 | 54.4 | 1.1 |
| Pears | 15.8 | 3.5 | 24.9 | 4.4 | 18.4 | 4.0 |
| Peaches | 19.8 | 4.3 | 20.7 | 4.6 | 18.5 | 4.5 |
| Lemons | 16.2 | 2.7 | 15.6 | 2.7 | 15.8 | 3.2 |
| Grapefruits | 9.5 | 1.3 | 9.8 | 1.4 | 11.2 | 1.8 |
| Total 'A' (incl. others). | 375.0 | 66.2 | 409.5 | 73.6 | 402.4 | 71.0 |
| **B. Fresh Vegetables** | | | | | | |
| Potatoes | 122.5 | 6.7 | 276.9 | 19.7 | 136.8 | 10.6 |
| Onions | 11.5 | 1.1 | 11.1 | 1.2 | 12.8 | 1.5 |
| Carrots & Turnips | 12.0 | 1.4 | 10.4 | 1.2 | 11.0 | 1.3 |
| Tomatoes | 5.6 | 1.8 | 6.6 | 1.7 | 5.2 | 1.8 |
| Capsicums | - | - | 1.6 | 0.4 | 1.6 | 0.4 |
| Total 'B' (incl others) | 342.4 | 39.2 | 478.3 | 49.6 | 420.6 | 48.5 |
| Grand Total | 717.4 | 105.4 | 887.8 | 123.2 | 823.0 | 119.5 |

4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries Volume III, Table A-2.5

Imports of fresh fruits was around 395,000 tonnes ($ 70.3 million) and vegetables about 413,000 tonnes ($ 45.8 million), during the same period. The largest share in imports of fresh fruits amounting to 170,000 tonnes (44% of the total imports) was claimed by citrus fruits. Spain, followed by Israel, Italy and South Africa were the major suppliers of this item. Bananas, which were next in importance in Belgian imports mostly originated from Ecuador and Colombia. Of the 54,000 tonnes of apple imports, over 50% was supplied by the Southern Hemisphere countries like Argentina, Australia, New Zealand and South Africa. Pears, peaches and berries were imported into Belgium from her EEC partners. Relatively less known tropical and sub-tropical fruits like mangoes, lychees, avacados and papaya, imported mainly from the African countries, represented a relatively insignificant share in Belgian imports.

Potatoes constituted the single largest item in the imports of fresh vegetables (43%), followed by onions, carrots and tomatoes, major suppliers being Netherlands, France, Italy and Canary Islands. Other vegetables like French beans, peas, asparagus and capsicums, imported mainly during the off-season period, originated in the ECM countries or their Associated territories. Vegetable imports into Belgium from outside EEC countries were not significant.

Exports. Belgian exports of fresh produce were of the order of about $ 66 million per annum during 1965-67 period. Main items of export included chicoree witlof,

potatoes, cauliflowers and lettuce in vegetables and apples, strawberries and grapes in fruits. Oranges amounting to 6,000-8,000 tonnes were re-exported from Antwerp mainly to Netherlands (following table).

More than 50% of the Belgian fruit exports during 1965-67 was directed towards the German market while Netherlands accounted for 30%, UK 11% and France 4%. During the same period, significant importers of Belgian vegetables were France 53%, Germany 17%, Netherlands 12% and Switzerland 10%.

Exports of Selected Fresh Vegetables
From Belgium-Luxemburg 5/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| A. Fresh Fruits | | | | | | |
| Apples | 31.2 | 3.2 | 11.9 | 1.8 | 44.5 | 3.8 |
| Strawberries | 7.8 | 3.3 | 8.7 | 3.5 | 15.2 | 6.2 |
| Table grapes | 2.3 | 1.7 | 2.3 | 2.0 | 2.2 | 1.0 |
| Oranges | 6.7 | 1.2 | 4.5 | 0.9 | 8.1 | 1.6 |
| Table 'A' (incl. others) | 66.7 | 12.6 | 61.1 | 13.1 | 104.7 | 21.2 |
| B. Fresh Vegetables | | | | | | |
| Potatoes | 278.7 | 14.2 | 77.8 | 5.0 | 108.0 | 4.9 |
| Chicoree witlof | 58.8 | 16.5 | 50.5 | 18.6 | 52.6 | 19.4 |
| Beans | 18.5 | 2.5 | 25.0 | 3.2 | 18.1 | 2.2 |

Contd.

5/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-3.5

| | 1965 | | 1966 | | 1967 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Cauliflowers | 12.7 | 1.4 | 9.8 | 1.3 | 13.1 | 1.7 |
| Lettuce | 7.8 | 3.4 | 8.9 | 4.4 | 14.4 | 5.6 |
| Tomatoes | 8.1 | 1.9 | 7.8 | 1.6 | 13.7 | 2.6 |
| Table 'B' (incl. others) | 466.1 | 53.9 | 255.8 | 47.7 | 301.5 | 49.4 |
| Grand Total | 532.8 | 66.5 | 316.9 | 60.8 | 406.2 | 70.6 |

Import Policy and Regulations

Imports originating from the EEC member countries and their Associated territories are governed by the rules and regulations as laid down in the Common Agricultural Policy. Belgian market is freely accessible to the member countries, and as against the third countries, they enjoy preferential treatment in the matter of tariffs. Market opportunities for the third countries, however, are governed by Common External Tariff system, import restrictions and in many items total prohibition of imports, except in the off-season period. A case in point is apples, whose imports are completely liberalised between March 16 and July 15, each year.

Channels of Distribution

Fruit and vegetable trade in Belgium is virtually controlled by a few prominent import houses established in Antwerp and Brussels. Imported produce is generally auctioned to the wholesalers who in turn distribute them to the 20,000 and odd retail outlets in the country.

Besides, there are about a dozen corporate chains and a few co-operative buying associations, who import their requirements directly. A list of major importers of fresh fruits and vegetables in Belgium is furnished in Volume VI.

In the distribution of home produce, co-operatives play a dominant role. About 50% of the Belgian horticultural production is commercialised by co-operatives. In 1966, their total turnover was estimated at 60 million.

In Belgium, fruits and vegetables are marketed through auction system. Wholesale prices of the fresh produce are determined during these auctions with the help of the Dutch clock system. The sole exception to this rule is bananas, whose prices are determined on the basis of the tie-up agreements between the exporters and their Belgian agents. Imports into Belgium are made solely on consignment basis; importers margins normally range between 7% and 10%.

Grading and Packaging

Fruits and vegetables imported into Belgium should comply with EEC Standard grades and packaging requirements. Besides, consignments should carry 'Sun jose' disease-free certificate from the country of origin. Senders and recipients names are to be clearly indicated on the packs, place of origin and the grades of produce contained in the packs must be boldly printed for facilitating control and inspection.

Publicity

Fruits with an established brand name like Jaffa oranges, Michaelen apples and Tropica bananas are highly publicised, by their exporters, in the Belgian market. Otherwise publicity expenditure on promoting fresh produce is restricted to display of hoardings and occasional advertisements in trade journals. The expenditure incidental to publicity campaigns is generally met by the exporters.

The National Office of Agricultural and Horticultural Markets (L' office National des Debouches Agricoles et Horticoles), a semi-government organisation located at Brussels, is responsible for promoting and publicising the Belgian produce in the foreign markets. About $ 1 million was incurred by this organisation towards publicity campaign in 1966-67.

## B. Processed Fruits and Vegetables

Market Size

Consumption of processed fruits and vegetables in Belgium-Luxemburg has risen from about 125,000 tonnes in 1965 to 141,000 tonnes in 1966. Following table presents apparent consumption of processed items during 1965-66:

(Next page)

Apparent Consumption of Processed Fruits and Vegetables in Belgium-Luxemburg 6/
(1965-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 35.1 | - | 93.0 | - |
| Imports | 48.5 | 13.70 | 43.0 | 18.10 |
| Exports | 13.8 | 4.40 | 69.8 | 16.40 |
| Apparent Consumption | 69.8 | - | 66.2 | - |
| Per Capita Consumption (kg) | 7.1 | - | 6.8 | - |

It is apparent from the above that despite sizeable home production, Belgian market relies upon external sources to the extent of 70% of fruit and 65% of vegetable requirements during 1965-66. Average annual exports of vegetables at 69,800 tonnes were substantial as compared to fruits at 13,800 tonnes, during the same period.

Production. The processing industry of Belgium-Luxemburg is largely oriented towards the manufacture of vegetables accounting on an average for about 70%

6/ Belgium National Institute of Statistics, Brussels

of the total production, the remainder making up for fruit preparations. Total output amounted to 127,400 tonnes in 1964 comprising 91,700 tonnes of vegetables and 35,700 tonnes of fruit preparations. Major items include peas, carrots, mixed peas and carrots, spinach and beans among vegetables, and pears, cherries and strawberries, jams and fruit pulps among fruit preparations. Following table presents the production of major items during 1964:

Production of Processed Fruits and Vegetables in Belgium-Luxemburg 7/

(Thousand Tonnes)

| | 1963 | 1964 |
|---|---|---|
| **Fruits** | | |
| Jams | 13.6 | 13.4 |
| Canned Fruits | 12.3 | 12.8 |
| Pulps etc | 4.7 | 9.1 |
| Total (including others) | 34.5 | 35.7 |
| **Vegetables** | | |
| Peas | 37.7 | 31.4 |
| Haricot beans | 19.8 | 24.8 |
| Peas and Carrots | 10.7 | 9.0 |
| Carrots | 4.0 | 4.0 |
| Spinach | 3.3 | 2.5 |
| Soups | 1.9 | 4.5 |
| Total (including others) | 94.3 | 91.7 |

7/ Belgium National Institute of Statistics, Brussels

Production of processed vegetables during 1965 declined in tune with the general crisis witnessed by the European canned vegetable industry. Besides, Germany which is Belgium's principal buyer, introduced certain restrictive measures aimed at safeguarding the interests of her domestic industry in 1964; these had also contributed towards the shrinkage of canned vegetable production in the country.

The Belgian processing industry being well organised, has been concentrated in a few hands, six large scale operations+ representing about 70% of the total production. Most of these units are equipped with modern machinery and equipment, and utilise upto date techniques in respect of production and procurement of raw materials.

Exports. Exports represent a very important outlet for the processing industry of Belgium, about 60% of the domestic production having been exported, on an average over 1965-66, mainly to the neighbouring European markets. Exports of vegetables amounted to 69,800 tonnes, peas, cucumbers, asparagus and beans representing over 60% of the total. Among fruit preparations, jams, jellies and marmalades, strawberries, cherries, pears, and plums constitute important items, total exports being 13,800 tonnes during the

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+ Ets. E. Materne, S.A., 22, rue du Progres, Jambes/ Namur; La Corbeille, S.A., 44, Dijkstraat, Wespelaar; Proba S.A., 24, Meir, Antwerp; Semeur S.A., Zwarte Zusterlaan, Malnies; Aldenardia SPRL, 3, Aalststeenweg, Edelare; and Culina S.A., Thorenbois-lez-Beguines.

same period. West Germany and Netherlands are the leading buyers of Belgian processed vegetables and fruits taking over 80% of the total exports. Some quantities are also exported to France, Switzerland and West Asian markets, their share of total off-take having been minimal.

Imports. Major proportion of processed fruits and vegetable requirements of Belgium-Luxemburg is met through imports which averaged at 91,500 tonnes during 1965-66. Following table presents the volume of imports of major items:

Imports of Processed Fruits

(Tonnes)

| | 1965 | 1966 | 1967 |
|---|---|---|---|
| Jams, Jellies etc. | 4,817 | 5,740 | 5,493 |
| Fruit Purees and Paste | 591 | 644 | 644 |
| Pineapples (Retail packs) | 6,235 | 8,878 | 7,999 |
| Peaches (Retail packs) | 6,844 | 7,290 | 7,002 |
| Apricots | 4,762 | 3,426 | 2,909 |
| Pears | 400 | 837 | 1,054 |
| Cherries | 178 | 297 | 396 |
| Strawberries | 168 | 160 | 142 |
| Other fruits | 7,779 | 8,131 | 7,832 |

(Contd. next page)

8/ Belgium National Institute of Statistics, Brussels

| | 1965 | 1966 | 1967 |
|---|---|---|---|
| Apricots without sugar (4-5 kg packs) | - | 4,912 | 5,048 |
| Pineapples " " " | 347 | 670 | 314 |
| Cherries " " " | 4,763 | 819 | 1,196 |
| Other Fruits " " | - | 635 | 738 |
| Total | 36,884 | 42,439 | 40,767 |

It would appear from the above that peaches, pineapples and apricots constitute the most important products, together accounting for 44% of the total imports of canned fruits during 1965-67. Among fruit in bulk containers, apricots represented about 67% of the total imports, during the same period. Pineapples in syrup constitute the leading item in the Belgian market for imported canned fruits, imports having shown a steady rise over the period. A sharp increase was witnessed in the imports of canned pineapples to the extent of 8,878 tonnes in 1966 as against 6,235 tonnes in 1965. Pineapples, according to trade circles, are expected to evince a higher growth rate in Belgium. Peaches which rank next in importance to pineapples rose from 6,844 tonnes in 1965 to 7,002 tonnes in 1967. Belgians are fond of jams and marmalades, comprising mainly apples, berries, cherries, currants and mixed jams; the total consumption of jams has been estimated at 20,000 tonnes in 1967. The other fruits which have made considerable improvement in the recent past include apricots and cherries. Trade discussions indicated the prospect of rapid increase in imports of peaches, pineapples, apricots and cherries in the coming years.

Fruit cocktails and citrus segments are not considered important in the Belgian market.

Pineapples. USA dominated the Belgian market for canned pineapples till 1965, when its share was 76%. Ever since, Taiwan and Ivory Coast have become serious contenders for market leadership; they improved their stakes to 21% and 18% respectively in 1967 from negligible shares in 1965. Taiwan's lower price at $ 0.28 per 2½ can as against $ 0.35 of USA appeared to be at the back of its success. The prices of Ivory Coast are reportedly much lower than those of Taiwan. It must however be mentioned that Hawaiian pineapples are far superior to Queens of Taiwan. Competitive pricing and aggressive selling appear to be responsible for the success of Taiwan in the Belgian market.

Peaches. In respect of peaches, USA has improved its position, her share having risen from 21% in 1965 to 72% in 1967. Other suppliers include South Africa, Australia and Japan. The Californian peaches are market leaders and Belgian consumers reportedly possess a strong sense of brand/variety loyalty, which is particularly evident in the case of peaches.

Apricots. The market for apricots has declined from 4,762 tonnes in 1965 to 2,909 tonnes in 1967, major suppliers being Spain 53%, South Africa 31% and USA 14%, in 1967.

Pears. In the case of pear halves, the market for which grew from 400 tonnes in 1965 to 1,054 tonnes in 1967, Italy has been the principal supplier followed by Spain, the share of the latter having declined considerably in the recent past.

Other Fruits. Belgium also offers a small but steady market for different varieties of fruits (without added sugar) in containers of 4-5 kg for the use of the growing domestic processing industry. Apricots, pineapples and cherries constitute the major fruits imported currently into Belgium.

Fruit Juices. In the absence of adequate production of fruit juices in the country, Belgian requirements are met through imports which multiplied rapidly as shown below:

Imports of Fruit Juices 9/

(Tonnes)

| | 1965 | 1966 | 1967 |
|---|---|---|---|
| Grape Juice | 1,671 | 2,127 | 1,747 |
| Orange Juice, Unsweetened | 2,744 | 1,663 | 3,301 |
| Orange Juice, Sweetened | - | 706 | 936 |
| Grapefruit Juice, Sweetened | - | 1,218 | 1,229 |

Contd....

9/ Belgium National Institute of Statistics, Brussels

| | 1965 | 1966 | 1967 |
|---|---|---|---|
| Pineapple Juice | - | 798 | 899 |
| Apples and Pear Juice | - | 704 | 1,085 |
| Tomato Juice | - | 1,019 | 1,066 |
| Other fruit Juice | - | 507 | 485 |
| Mixed fruit Juices | - | 203 | 269 |
| Total | 4,415 | 8,945 | 11,017 |

The above table establishes the marked increase in the import demand for unsweetened orange juice, grape juice, grapefruit juice, apples and pears juice, tomato juice and pineapple juice. From European standards, the market for juices is limited, though present indications suggest high growth potential in this sector.

Over 80% of the orange and grape fruit juices are imported in concentrated form for the local fruit drink industry. While orange and grapefruit juices are mainly supplied by USA and Israel, apple and pear juices of German origin are reported to be most popular among the Belgian consumers. Tomato juice market is dominated by France, with a share of 46% in 1967, followed by Italy 11%. The juice market is mainly controlled by USA and West Germany, the Belgians having attained a special preference for Florida juices.

Canned Vegetables. Imports of canned vegetables into Belgium are relatively small on account of sizeable manufacture of canned vegetables in the country. The Belgian market hardly offers any prospects except for items like mushrooms, tomato products, asparagus, and sauerkrant for which the indigenous production capacity is currently limited.

The present imports of canned vegetables include the following:

Imports of Processed Vegetables 10/

| | 1965 | 1966 | 1967 |
|---|---|---|---|
| Mushrooms and Truffles | 851 | 1,244 | 1,272 |
| Tomato Wholes | 14,123 | 12,805 | 14,026 |
| Asparagus | 1,380 | 1,634 | 1,733 |
| Sauerkrant | 2,034 | 2,149 | 2,197 |
| Peas | 1,184 | 3,110 | 4,035 |
| French Beans | 408 | 779 | 1,267 |
| Gherkins | 667 | 663 | 775 |
| Other Vegetables | 2,217 | 3,993 | 4,997 |
| Total | 22,864 | 26,377 | 30,302 |

Tomato products are by far the largest item among imported vegetables, having accounted for 46% of the total

10/ Belgium National Institute of Statistics, Brussels

imports, there being not much production in the country. Italy dominates the market, its share having averaged at 75% of the total. Other prepared vegetables including tropical vegetables, okra, etc. are also imported, the total imports having risen from 2,217 tonnes in 1965 to 4,997 tonnes in 1967, Netherlands being the main supplier.

French beans are mostly supplied by France and Italy whereas West Germany is the main supplier for sauerkrant. Despite local production, canned asparagus is growing in importance, USA and Taiwan being the major suppliers. USA however appears to have lost its hold on the market from 80% in 1965 to 33% in 1967, whereas Taiwan improved her stakes to 57% in 1967. Lower price quotation from Taiwan are reported to be responsible for their amazing success in the market.

The Survey revealed that the consumption of tropical canned fruits and vegetables is upward in Belgium-Luxemburg thus indicating increasing prospects for their sales. They would undoubtedly require aggressive sales promotion.

In addition to the above vegetables, some imports of pickles and chutneys, sauces, condiments and soups are also effected emanating mainly from Netherlands. The Survey indicated adequate scope for expanding the sale of Indian pickles and chutneys in the Belgian market.

Channels of Distribution

Processed fruits and vegetables in Belgium are normally sold through grocery stores, super markets, cooperative stores and departmental stores, total number

of retail points being estimated at 64,000. The retail outlets in the country are undergoing a process of rationalisation leading to the disappearance of uneconomic small stores and establishment of large scale operations. Another development relates to the offer of self-service facilities in the food retailing sector. According to a survey undertaken in Belgium, about 3 million sq. ft. area was covered by self-service stores in 1965, 52% of which was accounted for those with area over 4,000 sq. ft. each. The trend towards self-service stores is highly favourable to packaged and branded fruit, their sales having risen rapidly in the country over the last decade.

Private labels are growing in importance in the Belgian market; most of the big stores have shifted to private labels in respect of processed fruits. It has been estimated that during the next five years, over 60% of the total sales of processed fruits and vegetables would be under private labels. The corporate chains are marketing most of the products under their own labels.

Most of the stores, whether independent or affiliated to a corporate chain, are privately owned. While importing agents sell to chains stores and department stores through their central buying offices, the unaffiliated stores continue to be catered by the traditional wholesalers. Some of the big departmental stores and corporate chain stores also import directly to a limited extent.

Though a growing trend towards the establishment of voluntary chains is discernible in Belgium, the independent stores continue to hold a major share of the market. The table given below presents the structure of distribution of food items during 1965:

Pattern of Retail Distribution in Belgium-Luxemburg 11/

| Outlets | Number of Stores (1965) | Percentage of total retail turnover |
|---|---|---|
| Independent Stores | 41,000 | 45% |
| Departmental Stores | 4,360 | 12% |
| Voluntary Chains | 14,630 | 20% |
| Speciality Shops | 600 | 12% |
| Consumer Cooperatives | 3,000 | 11% |
| Total | 63,590 | 100 |

Major voluntary chains in Belgium are listed below:

Major Voluntary Chains in Belgium 12/

| Name | No. of Associated Wholesalers | No. of Associated Retailers |
|---|---|---|
| CENTRA | 8 | 3,580 |
| EXCELLA | 21 | 1,450 |
| LIDO | 7 | 2,000 |

Contd...

11/ Toute L'alimentation, CNCIA, Paris, 1967
12/ Toute L'alimentation, CNCIA, Paris, 1967

| Name | No. of Associated Wholesalers | No. of Associated Retailers |
|---|---|---|
| SPAR | 6 | 1,060 |
| VEGE | 11 | 2,740 |
| VIVO | 4 | 1,250 |
| INTERNOS | 17 | 1,150 |
| TIP | 4 | 1,100 |
| Panda | 5 | 900 |

It would thus be seen that over 50% of the total market for food items is controlled by corporate chains with a large number of stores operating all over the country. Buying function in these organizations having been centralised, minimum use is made of the wholesalers.

The Survey revealed that in the next few years, large number of stores are likely to be merged and affiliated with buying and corporate chain groups.

Import Policy and Regulations

Except for EEC regulations, there are no special restrictions imposed on the import of processed fruits and vegetables. Tariff duties leviable on imported products appear at Volume V, Chapter VII (d) of the report.

STORNOWAY
NORTH SEA
ATLANTIC OCEAN
INVE
INVERNESS
ABERDEEN
DUNDEE
EDINBURGH
GLASGOW
LONDONDERRY
BELFAST
SUNDERLAND
MIDDLESBROUGH
IRELAND
BLACKPOOL
BRADFORD
LEEDS
HULL
MANCHESTER
LIVERPOOL
SHEFFIELD
DERBY
NOTTINGHAM
BOSTON
STAFFORD
WOLVERHAMPTON
BIRMINGHAM
LEICESTER
COVENTRY
NORWICH
SWANSEA
CARDIFF
BRISTOL
BATH
IPSWICH
SOUTHEND
LONDON
SOUTHAMPTON
PLYMOUTH
BOURNEMOUTH
PORTSMOUTH
BRIGHTON

## 5.6 UNITED KINGDOM

### Background

With a population of 55 million and a per capita income of $ 1,910, UK offers the second largest market, after West Germany, for fruit and vegetable items in Europe. Its average annual imports of horticultural commodities and products constituted about 16% of the total agricultural imports of $ 4.6 billion, during 1964-66.

The National Food Survey Committee, Central Statistical Office, London, estimated the household expenditure on fresh and processed fruits and vegetables in UK and about $ 2.4 billion during 1965-66 and the annual growth rate of expenditure at 5% during 1955-65.[1/] According to the Survey, almost two-thirds of the total vegetable requirements (including potatoes) were met by domestic production and the rest by imports. In the case of fruit and fruit preparations, however, one-third was home grown and two-thirds imported.

Against this background, there has been a fierce competition among the major supplying countries of the world for obtaining a sizeable share of the large UK market for fruits and vegetables.

### A. Fresh Fruits and Vegetables

### Market Size

According to the Central Statistical Office, London, the aggregate consumer expenditure on fresh fruits and vegetables in UK was approximately $ 1.9

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1/ Distribution Costs of Fresh Fruits and Vegetables, HMO, London, 1967

billion during 1965-66. Over the last three years (1964-66), the outlay on fresh fruit is reported to have increased by 18% and fresh vegetables by 3%.

In terms of volume, annual apparent consumption of fresh fruits and vegetables during 1964-66 has been reckoned at 13.2 million tonnes, of which 7.5 million was accounted for by potatoes, 2.2 million tonnes by fruits and 3.5 million tonnes by fresh vegetables. About 81% (10.7 million tonnes) of the UK fresh produce requirements were met by domestic production, and the remainder of 2.4 million tonnes by imports. Annual average value of imports was $ 549 million, during the corresponding period (Table below).

Apparent Consumption of Fresh Fruits and Vegetables in UK 2/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 770 | - | 10,133 | - |
| Imports | 1,436 | 345.0 | 1,027 | 204.0 |
| Exports | 12 | 2.5 | 174 | 15.0 |
| Apparent Consumption | 2,194 | - | 10,986 | - |
| Per Capita Consumption (kg) | 41 | - | 203 | - |

2/ OECD Commodities Trade Statistics, Paris

Production. Fruit crops constitute over 7% of the horticultural output in UK. Main types of orchard and soft fruits produced in the country are dessert and cooking apples, pears, cherries, plums, strawberries and gooseberries. Apples and pears are, however, the most important English fruit crops and account nearly for 25% of the fruit output. The Apple and Pear Development Council was established in 1967 with the primary function of promoting sales of home-grown commodities.

Production of Selected Fruits and Vegetables in UK 3/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| **Fresh Fruits** | | | |
| Apples, table | 317.8 | 297.5 | 267.1 |
| cooking | 256.9 | 249.1 | 174.2 |
| cider | 52.6 | 46.5 | 23.8 |
| Pears | 66.7 | 70.0 | 41.8 |
| Plums | 50.4 | 44.9 | 44.9 |
| Strawberries | 35.8 | 33.6 | 40.0 |
| Total (including others) | 843.3 | 818.6 | 650.9 |
| **Fresh Vegetables** | | | |
| Potatoes | 7,500 | 7,500 | 7,500 |
| Cabbages | 600 | 527 | 573 |

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3/ Basic Statistics on Fresh Fruits and Vegetables, Volume III, Table A-1.6, of the Report

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Carrots | 424 | 325 | 288 |
| Peas | 253 | 268 | 237 |
| Brussels Sprouts | 181 | 163 | 182 |
| Turnips & Swedes | 151 | 145 | 133 |
| Lettuce | 92 | 109 | 105 |
| Total (including others) | 10,267 | 10,065 | 10,066 |
| Grand Total | 11,110.3 | 10,883.6 | 10,716.9 |

Potatoes represent over 75% of the total 10.1 million tonnes of leguminous and root crop production in UK. Other important fresh vegetables produced in the open fields include cabbages, carrots, brussels sprouts, peas and lettuce. Production under glass and serre has shown rapid progress in recent years and the total output from this source during 1966 has been estimated at 158,000 tonnes. Main items grown under glass comprised tomatoes, cucumbers, lettuce and mushrooms.

A significant proportion of the country's fruit and vegetable production is directed for processing purposes, the degree of utilisation varying from crop to crop. Cider apples and perry pears, for instance, are wholly intended for processing and more than four-fifths of green peas utilised for canning and deep freezing.

The Selective Expansion Programme of Agriculture announced by the government in September 1965, envisages the horticultural industry to meet a substantial part of

the additional requirements of temperate fruits by 1970, on the basis of increasing rate of productivity than extensive cultivation.

A number of schemes have already been evolved to make the Programme successful. They include i) The Horticultural Scheme of 1966, which provides various types of grants to growers and horticultural marketing co-operatives to improve the efficiency of their operations, ii) The Small Horticultural Production Business Scheme, under which grants are made available to growers for implementing a three-year improvement and modernisation programme and iii) The Farm Business Recording Scheme which encourages the farmers and growers to maintain farm and horticultural business records as an aid to sound management decisions.

However, neither production targets are set for the individual horticultural items in the programme, nor the planners foresee any abatement in the intake of fresh fruits and vegetables from overseas countries, in the years to come.

Imports. Imports of fresh fruits and vegetables have been registering a steady growth in UK during the past few years. They amounted to $ 582 million in 1966, of which $ 365 million comprised fresh fruits and $ 217 million fresh vegetables.

Imports of citrus fruits aggregating 531,000 tonnes ( $ 86 million) during 1966 constituted the major fresh item, oranges & tangerines being dominant. The main

suppliers of oranges and tangerines to UK were Spain (149,000 tonnes), Israel (118,907 tonnes), South Africa (93,549 tonnes) and Morocco (19,804 tonnes). Grapefruits originated mainly from Israel, South Africa and Cyprus and limes & lemons from Italy, Cyprus and South Africa.

Bananas and plantains were next in importance among the fresh tropical fruits imports. Bulk of UK banana imports accrue from the Caribbean area. Jamaica accounted for the largest share closely followed by a group of Islands - Dominica, Grenada, St. Lucia and St. Vincent.

Imports of Selected Fresh Fruits and Vegetables into UK 4/

Quantity: Thousand Tonnes
Value: Million Dollars

| Commodities | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh Fruits | | | | | | |
| Oranges & tangerines | 410 | 60 | 395 | 60 | 421 | 67 |
| Bananas | 353 | 55 | 3 76 | 53 | 373 | 53 |
| Apples | 238 | 53 | 246 | 60 | 278 | 65 |
| Grapefruit | 74 | 12 | 72 | 10 | 77 | 12 |
| Grapes | 60 | 19 | 63 | 19 | 68 | 24 |
| Pears & quinces | 69 | 14 | 52 | 14 | 81 | 19 |
| Melons | 42 | 7 | 43 | 7 | 40 | 7 |
| Total (including others) | 1419 | 329 | 1400 | 341 | 1490 | 365 |

(Contd. next page)

4/ Basic Statistics on Fresh Fruits and Vegetables, Volume III, Table A-2.6, of the Report.

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh vegetables | | | | | | |
| Potatoes | 279 | 26 | 251 | 28 | 248 | 31 |
| Onions | 203 | 17 | 217 | 19 | 213 | 19 |
| Tomatoes | 168 | 55 | 166 | 50 | 157 | 52 |
| Carrots | 27 | 3 | 24 | 3 | 39 | 5 |
| Cauliflowers | 27 | 3 | 30 | 4 | 26 | 4 |
| Total (including others) | 1021 | 195 | 1030 | 200 | 1021 | 217 |
| Total | 2,450 | 524 | 2,430 | 541 | 2,511 | 582 |

On the average, 50% of the annual table apple requirement of UK, estimated at 250,000 tonnes, is met by imports, Australia, South Africa and New Zealand being the major sources of supply.

Other fresh fruit imports include grapes, pears and quinces and melons. These fruits are generally supplied by Italy, France and Spain.

While the overall fresh vegetable imports into UK have been steady at 2.4 million tonnes between 1964 and 1966, imports of individual items have fluctuated, year by year, depending upon the home crop. In terms of value, however, fresh vegetable imports have shown a gradual increase from $ 195 million to $ 217 million during the corresponding period. Potatoes, onions, tomatoes, carrots and cauliflowers were significant items of import in this group, West European countries and the Canary Islands being the major market leaders.

Exports. Exports and re-exports of fresh fruits and vegetables are comparatively small and are mainly confined to tomatoes, apples and potatoes. Potatoes are exported to the West European countries for seed purposes and the other fresh vegetable exports are mainly directed towards the Irish market. Total value of fresh vegetable exports during 1966 was $ 25 million.

Exports of Fresh Fruits and Vegetables from UK 5/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh fruits | 12.3 | 2.1 | 12.0 | 1.4 | 12.6 | 2.8 |
| Fresh vegetables | 93.5 | 10.2 | 158.4 | 12.6 | 271.3 | 22.3 |
| Of which Potatoes | (77.0) | (5.1) | (132.0) | (6.6) | (209.0) | (12.5) |
| Total | 111.8 | 12.3 | 170.4 | 15.0 | 393.9 | 25.1 |

Import Policy and Regulations

UK is a comparatively free market and most of the fresh produce is admitted into the country without undue restrictions. Licences are essential for all imports. Commonwealth countries, South Africa and Canada have free access to the UK market under special preferential arrangements. Third

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5/ Basic Statistics on Fresh Fruits and Vegetables, Volume III, Table A-3.6, of the Report

countries face a stiff tariff barrier and there are quota restrictions also for dollar currency areas. All imports are subject to United Kingdom Plant Health Regulations and phytosanitary certificate issued by Plant Protection Service of the exporting country must accompany all import consignments.

Grading and Packing

Under the Agriculture and Horticulture Act of 1964, statutory grading has been instituted initially for five commodities viz. apples, pears, tomatoes, cauliflowers and cucumbers. Compulsory standards are expected to be introduced gradually for other commodities.

The British grades are in line with those recommended under OECD Scheme for applying International Standards for Fruits and Vegetables, but they are modified to suit the needs of the domestic market and to take account of the fact that the grades will be checked at the wholesale point and not at the point of despatch. Produce subject to grading regulations will have to be labelled with one of the grade designations when sold through wholesale channels.

Simultaneously, commercial and store level prepackaging of fresh fruit and vegetables has continued with the increase in self-service and supermarket trading. Many of the exporting countries are despatching their produce in pre-packaged condition to facilitate distribution at the green-grocer's end.

Channels of Distribution

Although importers-wholesalers, commission agents and other traditional outlets continue to import bulk of the fresh produce into UK, in recent years, buying co-operative associations, buying wholesalers groups and corporate chains have gained significance and their share is gradually increasing in the total imports.

There are about 300 fruit and vegetable importers and importers-wholesalers, a number of major producers' marketing boards (such as Deciduous Fruit Board of South Africa, the Citrus Marketing Board of Israel and the New Zealand Apple and Pear Marketing Board) and many smaller firms who are engaged in distributing fresh produce in UK. Most marketing boards, it is reported, select a panel of wholesalers to sell their produce on commission. The corporate chains and the buying groups import directly and either sell the produce at their retail outlets or distribute them through their affiliated members.

There are over 2,500 importers-wholesalers in UK spread over London, Liverpool, Manchester and Glasgow, most of whom buy outright from producers or importers or other wholesalers and sell their produce in the markets. At the retail level, green grocers and fruitiers continue to handle the bulk of the fresh produce sales inspite of fast growth in self-service counter and supermarkets.

Sales Promotion

Consumer promotion constitutes an important feature of the fresh fruit marketing in UK. Major supplying countries have large stakes in the UK market and are incurring sizeable expenditure aimed at promotion and

publicity of their commodities. There is a clear trend towards the sale of fresh produce as branded products, important of them being Jaffa oranges and grapefruits of Israel, Outspan and Cape fruit of South Africa, Moroc oranges of Morocco and Chiquita bananas of United Fruits.

Growing importance of fresh produce sales under brands has led to increased media advertising activity in UK, which constitutes the most important consuming market for fresh fruits and vegetables in the whole of Europe. More important media utilised by exporting countries include advertising in trade and consumer press, television, demonstrations and prize competitions. A total expenditure of £ 251,283 ( $ 604,675) comprising £ 161,665 on television publicity and £ 90,283 on press advertising was incurred in UK in 1967 by major fruit and vegetable exporting countries including Israel, Australia, USA, Cyprus, Denmark, Netherlands, Italy and South Africa. The Citrus Marketing Board of Israel accounted for £ 102,230 ( $ 245,352) during the same year, £ 1,339 being devoted to press and £ 100,891 for publicity through television. Australian Apples and Pears Board and Cape Fruits spent £ 80,862 and £ 21,203 respectively on sales promotion in UK during 1967.

In addition, free offers are being made by companies having substantial stakes in UK market, recent offers having included 10 lbs of grapes free to any one reaching 100 years of age in 1966 by Cape Grapes, Jaffa grapefruits offer of cutlery and Outspan's offer of a cutlery self-liquidator set. The Potato Marketing Board has had a

series of free offers of recipe booklets promoted in popular women's magazines. In-store display material has multiplied recently and well displayed fruit in modern retailing units are effectively promoted with illustrative point-of-sale material including show cards, counter and wall boards.

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## B. Processed Fruits and Vegetables

### Market Size

The market size of processed fruits and vegetables in UK has been estimated at 1.43 million tonnes, of which fruits accounted for 41% and vegetables 59%, during 1964-66. The table given below gives details of the apparent consumption of processed items:

Apparent Consumption of Processed Fruits and Vegetables 6/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 95.0 | - | 674.0 | - |
| Imports | 511.0 | 143.0 | 185.0 | 44.0 |
| Exports | 17.0 | 7.0 | 19.0 | 6.0 |
| Apparent Consumption | 589.0 | - | 840.0 | - |
| Per Capita Consumption (kg) | 10.7 | - | 15.3 | - |

The apparent consumption of processed fruits, having registered a remarkable rise of 24% during 1958-62, witnessed an annual growth rate of only 7% over 1964-66. The National Food Survey Committee, in its report of 1963, concluded that 'when the

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6/ Statistical Review of the Canning, Freezing Industries in UK, Fruit and Vegetable Preservation Research Association, Chipping Campden, Gloucestershire, UK

influences of changes in price and incomes have been eliminated, there appears to have been a marked contraction in the underlying demand for most types of fruits, whether fresh or canned with the sole exception of fresh apples'. This is surprising as there are generally high income elasticies for most of the fruits individually; a rise in real incomes should normally be expected to lead to increased consumption inasmuch as the real price trends in UK have been downward. The market for processed fruits appears to be reaching a saturation point in UK, mainly due to changing consumer habits; at the same time there exists scope for introduction of new tropical items altogether.

In respect of processed vegetables too, the annual growth rate of consumption was low at 4%, during 1964-66. About 82% of processed vegetable requirements of the country were met by domestic production in 1966, whereas 87% of the demand for processed fruits was covered by imports.

Production. The indigenous canning industry is largely oriented towards processing not only on account of plentiful supply of fresh vegetables but also because of the British preference for processed items as compared to fresh vegetables. On the other hand, demand for fresh fruits continues to be substantial though consumption of processed fruits is upward. Total production of fruit preparations amounted to 94,900 tonnes in 1966 as against the aggregate processed vegetables production of 708,000 tonnes. The fall in the production of canned fruits is mainly attributa-

-ble to bad crop conditions obtaining in UK during the period.

While detailed statistics on domestic production appear at Volume IV, Table 8-1.6, of the Report, the following table presents the trend of production of major processed horticultural items over 1964-66:

Production of Processed Fruits and Vegetables in UK 7/

(Thousand Tonnes)

| | 1964 | 1966 |
|---|---|---|
| **Processed Fruits** | | |
| Fruit Salad | 18.1 | 16.2 |
| Rhubarb | 14.3 | 11.3 |
| Strawberries | 12.3 | 13.6 |
| Apples | 11.7 | 10.3 |
| Plums, etc. | 5.9 | 9.9 |
| Prunes | 6.6 | 8.4 |
| Goosberries | 5.4 | 5.6 |
| Peaches | 3.1 | 2.7 |
| Total fruits (incldg.others) | 95.9 | 84.0 |
| **Processed Vegetables** | | |
| Beans in Tomato Sauce | 258.9 | 272.2 |
| Processed Peas | 177.4 | 191.5 |
| Fresh Peas | 87.3 | 87.3 |
| Carrots | 55.6 | 48.5 |
| Total vegetables (incldg. others) | 687.9 | 708.0 |

7/ Fruit and Vegetable Preservation Research Organisation, Gloucestershire, Op. Cit.

Pack Sizes. The trend of production of selected fruit and vegetable preparations by major can sizes is presented below:

Production of Selected Processed Fruits and Vegetables by Pack Sizes 8/

(Percentage of total output by weight)

| Product | Sizes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 5 oz | 8 oz | A1 | E1 | IT | A2 | A2½ | A10 | Others |
| **Fruits** | | | | | | | | | |
| **Fruit Salad** | | | | | | | | | |
| 1964 | - | 18 | NA | 7 | 48 | NA | 22 | 4 | 1 |
| 1965 | - | 19 | NA | 6 | 47 | NA | 19 | 7 | 2 |
| 1966 | - | 23 | NA | 9 | 36 | NA | 20 | 10 | 2 |
| **Strawberries** | | | | | | | | | |
| 1964 | - | 16 | 11 | 27 | 24 | 21 | - | 1 | - |
| 1965 | - | 15 | 14 | 25 | 26 | 19 | - | 1 | - |
| 1966 | - | 13 | 11 | 30 | 25 | 20 | - | NA | 1 |
| **Rhubarb** | | | | | | | | | |
| 1964 | - | - | - | - | - | 66 | - | 32 | 2 |
| 1965 | - | - | - | - | - | 56 | - | 43 | 1 |
| 1966 | - | - | - | - | - | 64 | - | 36 | - |
| **Peaches** | | | | | | | | | |
| 1964 | - | 74 | - | - | 16 | NA | NA | NA | 10 |
| 1965 | - | 68 | - | - | 26 | NA | NA | - | 6 |
| 1966 | - | 78 | - | - | 7 | NA | NA | NA | 15 |

(Contd. next page)

8/ Statistical Review of the Canning and Quick Freezing Industries in the United Kingdom, Fruit and Vegetable Preservation Research Association, Gloucestershire, 1966

| | 5 oz | 8 oz | A1 | E1 | IT | A2 | A2½ | A10 | Others |
|---|---|---|---|---|---|---|---|---|---|
| **Prunes** | | | | | | | | | |
| 1964 | - | 30 | - | - | 53 | - | - | 6 | 11 |
| 1965 | - | 28 | - | - | 58 | - | - | 4 | 10 |
| 1966 | - | 31 | - | - | 57 | - | - | 7 | 5 |
| **Plums etc** | | | | | | | | | |
| 1964 | - | - | - | NA | NA | 78 | NA | 14 | 8 |
| 1965 | - | - | - | NA | NA | 60 | NA | 35 | 5 |
| 1966 | - | - | - | - | 1 | 64 | NA | 31 | 1 |
| **Apples** | | | | | | | | | |
| 1964 | - | - | - | - | - | - | - | 96 | 4 |
| 1965 | - | - | - | - | - | - | - | 97 | 3 |
| 1966 | - | - | - | - | - | - | - | 98 | 2 |
| **Vegetables** | | | | | | | | | |
| **Processed Peas** | | | | | | | | | |
| 1964 | 3 | - | 41 | - | 10 | 27 | 2 | 17 | - |
| 1965 | 3 | 1 | 42 | - | 9 | 25 | 2 | 18 | - |
| 1966 | 3 | - | 41 | - | 9 | 25 | 2 | 20 | - |
| **Beans in Tomato Sauce** | | | | | | | | | |
| 1964 | 5 | 33 | NA | - | 48 | 5 | 2 | 7 | - |
| 1965 | 4 | 34 | NA | - | 44 | 7 | 2 | 9 | - |
| 1966 | 5 | 34 | NA | - | 42 | 8 | 2 | 9 | - |
| **Fresh Peas** | | | | | | | | | |
| 1964 | - | - | 51 | - | 17 | 17 | NA | 6 | 9 |
| 1965 | - | - | 51 | - | 18 | 15 | NA | 7 | 9 |
| 1966 | - | - | 54 | - | 18 | 16 | NA | 7 | 5 |
| **Carrots** | | | | | | | | | |
| 1964 | - | 40 | NA | - | 12 | 15 | 3 | 27 | 3 |
| 1965 | - | 40 | NA | - | 8 | 12 | 5 | 33 | 2 |
| 1966 | - | 39 | NA | - | 11 | 16 | 2 | 31 | 1 |

It would be seen from the above that among fruit preparations No.1 Tall is the most popular pack, its share in prunes, fruit salads and strawberries being 57%, 36% and 25% respectively in 1966. 8 oz can is gaining popularity in packaging peaches, fruit salads and prunes. For instance, it accounted for 78% of the total output of canned peaches in 1966 as against 74% in 1964 and 50% in 1961. Its usage has gone up from 18% in 1964 to 23% in 1966 with respect to fruit salads. Cans of A10 size are not very common in fruits with the exception of apples, plums and rhubarbs where they represented 98%, 31% and 36% of the total production in 1966 as against 96%, 14% and 32% respectively in 1964,thus indicating the growing institutional clientele.

In respect of vegetables too No.1 Tall is the premier pack, accounting for 42% of beans in tomato sauce, 18% of fresh peas, 16% of carrots and 9% of processed peas in 1966. The position of A1 size almost remained steady with the exception of fresh peas where this size represented 54% of the total output in 1966 as against 51% in 1964. Processed peas and beans in tomato sauce are also packed in 5 oz cans. A10 size is of considerable significance in packaging carrots, processed peas and beans in tomato sauce.

Exports. Exports form a very negligible proportion of the total British production of processed fruits and vegetables. Exports totalling 37,500 tonnes (19,500 tonnes of vegetables and 18,000 tonnes of fruit preparations), formed 4% of the output in 1966. Catsup, peas and beans among vegetables and jams among fruit items are the principal export items, mainly directed to West Germany, Malaysia, Singapore, Canada and Nigeria.

Imports. United Kingdom constitutes the largest market for canned fruits and vegetables in the whole of Europe. Imports of fruit preparation are four times higher than the domestic production, and processed vegetables 18% of the total indigenous output. While detailed statistics on imports are furnished at Volume IV, Table B-2.6 of the Report, the following data relate to major items of interest:

Imports of Processed Fruits and Vegetables 9/

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Unsweetened | | | |
| Apples | 8.1 | 8.2 | 10.5 |
| Others (excluding pulps) | 17.4 | 16.2 | 11.9 |

(Contd. next page)

9/ Foreign Trade Statistics of United Kingdom, London

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| In Syrup | | | |
| Peaches | 101.2 | 103.9 | 98.7 |
| Pears | 63.2 | 69.6 | 67.2 |
| Pineapples | 52.5 | 56.5 | 63.4 |
| Fruit Salad | 31.4 | 24.9 | 31.4 |
| Grape Fruit Segments | 22.9 | 21 | 27.1 |
| Mandarin Orange Segments | 20.5 | 23.2 | 23.9 |
| Apricots | 20.3 | 16.6 | 11.9 |
| Berries | 11.5 | 8.7 | 7.0 |
| Others | 13.8 | 15.5 | 23.4 |
| Pulps | | | |
| Apricot Pulps | 10.9 | 7.9 | 13.3 |
| Other Pulps | 14.3 | 14.1 | 18.6 |
| Fruit Juices | | | |
| Single Strength | | | |
| Orange Juice | 17.9 | 24.5 | 21.9 |
| Grape Fruit Juice | 10.7 | 11.9 | 13.9 |
| Other Citrus Juice | 9.1 | 10.8 | 13.2 |
| Tomato Juice | 3.6 | 5.9 | 7.9 |
| Concentrates | | | |
| Orange (Cans) | 1.3 | 2.7 | 3.9 |
| Orange (Casks) | 4.0 | 3.7 | 5.2 |
| Other Citrus Juice | 3.1 | 3.9 | 5.7 |
| Tomato Juice | 7.2 | 8.0 | 7.3 |
| Other Fruit Juice | 20.1 | 24.6 | 24.8 |
| Total (incldg. others) | 481.5 | 503.0 | 545.0 |

The rise in the annual demand at 4.2% between 1963 and 1966 is considered low indicating the point of saturation nearly reached in the market for processed fruits and vegetables.

Fruits in syrup comprising mainly peaches, pears, pineapples, fruit salads and orange segments account for about 65% of the total imports in 1966. South Africa is the largest supplier to UK, having accounted for 23% of the total imports in 1966, followed by Australia.

i) Peaches. Peaches, mainly comprising sliced yellow clingstone variety, are popular among the British consumers. The peach market is dominated by South Africa with 64% share in 1966, followed by Australia 31%.

ii) Pears. Australian bartlet pears constituted the most popular item accounting for a share of 61%, followed by South African pears 31%, in 1966. While Australia has been dominating the UK market for pears for the last 5 years, South Africa has improved her stakes considerably in the recent past.

iii) Pineapples. The pineapple market is dominated by the Commonwealth countries of Malaysia and Singapore, and South Africa. This has been attributed to the financial interests of some of the British canners in the pineapple industry of these countries, and the tariff preferences enjoyed by them. During the past few years USA and Philippines have improved their position in the UK market.

The popular types of canned pineapples sold in the market comprise Smooth Cayenne variety which has a distinctly sharp flavour, and the Queen variety having blandness in taste. While Smooth Cayenne variety marketed in the form of slices originates from USA, Queen variety hails from Australia, Malaysia, Singapore and South Africa in the form of chunks with a high syrup strength. The prospects of Smooth Cayenne slices are considered bright in UK.

Citrus Segments. While Japan leads the market in respect of mandarin orange segments with a share of 83% in 1966, Israel and Jamaica accounted for 30% each of the grapefruit market. Off late, China (Mainland) has improved its position in the mandarin orange segments sector. Consumer preference is clearly in favour of the Japanese product, which is imported mainly in three sizes, Large (A10), Medium (A5) and Small (11 oz). Small quantities of orange and tangerine segments are also imported from Cyprus and Taiwan.

Fruit Juices. Single strength and concentrated citrus juices form 65% of the fruit juices imported into UK during 1966, orange being the most important. Tomato juice and grape juice are also imported in sizeable quantities.

Detailed break-down in respect of origin of supplies appears at Volume IV, Table B-2.6, of the Report. Israel is the major source of single strength orange and grapefruit juices, accounting

for over 50% of the total market in 1966. In respect of other single strength citrus juices, Ghana leads the market, with 36% share in the same year. Concentrated citrus juices, mainly orange juice, are imported from Israel, South Africa, Greece and British Honduras; lemon juice concentrates come mostly from Italy. Tomato juice is another important product in the market, supplied by Canada, Spain, France and Italy, with Canada having 50% share of the total imports.

Canned Vegetables. Imports of major canned vegetables into UK over the 1964-66 period are presented below:

Imports of Processed Vegetables 10/

(Thousand Tonnes)

| | 1964 | 1966 |
|---|---|---|
| Whole Peeled Tomatoes | 80.9 | 69.4 |
| Tomato Puree | 44.2 | 65.5 |
| Beans | 9.7 | 9.3 |
| Asparagus | 1.7 | 1.9 |
| Pickles and Vegetables | 6.7 | 7.5 |
| Total (including others) | 177.0 | 209.0 |

Tomato products comprising whole peeled tomatoes and puree are the major items among imported canned vegetables. Whereas tomato puree is principally supplied by Portugal and Italy, whole peeled tomatoes are imported from Italy, Bulgaria and Spain. Italy's share of the whole peeled tomato market has been declining having fallen from 72% in 1963 to 67% in 1966. Portugal, on

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10/ Foreign Trade Statistics of United Kingdom, Op.Cit.

the other hand, has improved its stakes considerably in the recent years; it has also an important supplier of tomato puree, having increased its share from 43% in 1964 to 57% in 1966. Portugal's success in the market is mainly attributable to EFTA tariff concessions on the one hand and the rapid strides made by its tomato processing industry on the other. Bulgaria has been operating mainly through institutional consumers. Bulgarians reportedly under-sold for the first 4/5 years till their product was well established in UK.

The market for tomato puree is limited to about 25 manufacturers and a few confectioners and caterers, its principal use being in the manufacture of beans in tomato sauce, canned fish and catsup. It is imported mainly in a concentration of 28-30° brix salt free in 5 kg tins.

Among the other imported canned vegetables, beans peas and sweet corns are significant. The market for imported beans and peas, however, has been contracting owing to rising local production. Besides, the increasing demand for frozen vegetables in UK has been responsible for the reduction in the demand for imported vegetables. Imports of frozen vegetables, for instance, reached a record figure of 37,203 tonnes in 1966 in addition to the domestic production of approximately 98,000 tonnes in the same year.

Channels of Distribution

Imports are mainly directed through agents operating all over UK, barring some institutional consumers who buy directly from overseas manufacturers. Imporrting agents normally work against

commission ranging between 3% to 7% on C.I.F. value of imports.

Significant changes have since recently been taking place in the pattern of distribution in food trade in UK. Direct trading by retailer-controlled organisations and collective buying groups is becoming more and more dominant. Information collected on food trading in UK indicated that in 1966 multiple chain stores accounted for 37% of the total grocery turn-over in UK as against 31% in 1962, the share of the independent grocers having declined from 35% to 20%. Voluntary groups accounted for 27% share of the market in 1966 as against 15% in 1962. Food trading in UK is leading towards concentration with voluntary groups and multiples growing in importance. It has been stated that an overseas exporter of processed products can today reach 80% of the British market through 1,600 buying points as against 40% of the market through 2,800 outlets in 1950. This has helped many developing countries of the Commonwealth to penetrate into UK through less wide-spread marketing effort.

Another important market characteristic of food trading in UK relates to the predominance of buyers' labels as against overseas packers' labels. It has, for instance, been estimated by the trade that over 40% of the South African canned fruits shipped to UK in 1966 were marketed under local buyers' labels. The increasing concentration among chains and multiples has made them more powerful thus facilitating their insistence on marketing the products under their own labels. Chain stores like Mark & Spencers, J. Sainsbury, Tesco,

International Tea Company and Woolworth normally operate under their own brand names.

Sales Promotion

The Survey revealed that there are approximately 150 different brands of processed fruits and vegetables currently sold in the UK market, including Libby's, Del Monte, Artmona, SPC and KY having attained a national distribution stature. KY and Artmona brands of Australia are heavily promoted in view of the fiercely competitive nature of the UK market. Likewise Del Monte products, originally marketed through a local import house, are for the past few years being sold through their own selling and distributive organisation which undertakes concerted promotional effort in the country. Besides, locally packed processed fruits and vegetables, major among them being Smedley's Lockwoods and Heinz which are particularly strong in the cheaper fruit salad market are also powerfully promoted. Being essentially a commodity market with limited consumer loyalty to a brand, countries having substantial stakes in the market are obliged to incur sizeable expenditure on efforts aimed at sales promotion and publicity.

It is learnt that 5-7% of the total turnover of large marketing companies is spent on sales promotion. Statistics collected during the Survey indicated that Del Monte's expenditure on publicity was reckoned at £ 155,000 ($ 372,000), and that of SPC at £ 105,000 ($ 245,000) in 1967. Media used include advertising through trade and consumer press, television, point-of-sale material, demonstrations and mail publicity, television being the most significant medium. For

instance, SPC's total expenditure of £ 105,000 during 1967 was wholly devoted to publicity through television.

Import Policy and Regulations

The Government of UK imposes restrictions on the imports of processed fruits and vegetables including orange and grapefruit juices and canned grapefruits, yearly quotas from Dollar areas being fixed. The average quota for grapefruit has been around £ 450,000 ($ 1080,000) and for grapefruit and orange juices £ 300,000 ($ 720,000). Besides these quota restrictions on imports from Dollars areas, imports of processed fruits and vegetables are freely allowed. The rates of tariff duties leviable on processed fruits and vegetables appear at Volume V, Chapter 9(c), of the Report.

## 5.7 SPAIN

### Background

With a per capita income of $ 770 and GNP of 24.5 billion in 1966, Spain constitutes one of the less developed members of the OECD. Agriculture is the mainstay of the economy accounting for 17.6% of the GNP during 1966. The per capita private consumption expenditure of Spain, with a population of 31.8 million. was $ 530 in the same year. Though information on consumer expenditure on fruits and vegetables is not available, it is believed to be of the order of 45% of the total expenditure on food which is considered high in comparison with the other European countries.

Being a major producer of numerous varieties of fruits and vegetables, exports constitute 29% of the aggregate production of 6.80 million tonnes. Spain leads the international citrus market with a share of 30% of the total world exports, other major items being bananas, grapes, peaches, pears, malons, apples, potatoes, onions, artichokes and peas.

### A. Fresh Fruits and Vegetables

#### Market Size

A major proportion of the fruits and vegetables is consumed locally in fresh form, as would be evident from the table given below:

(Next page)

ATLANTIC OCEAN
FRANCE
LA CORUÑA
GIJON
SANTANDER
PONTEVEDRA
VIGO
BILBAO
SAN SEBASTIAN
PAMPLONA
BURGOS
ZAMORA
PALENCIA
ZARAGOZA
ANDORRA
VALLADOLID
SALAMANCA
SEGOVIA
PORTUGAL
BARCELONA
TARRAGONA
MADRID
BADAJOZ
CASTELLON DE LA PLANA
VALENCIA
PALMA
CORDOBA
SEVILLE
MURCIA
CARTAGENA
MEDITERRANEAN SEA
CADIZ
MALAGA
ALMERIA
GIBRALTAR
CEUTA (SPAIN)
MELILLA (SPAIN)
AFRICA

Apparent Consumption of Fresh Fruits and Vegetables in Spain (1964-66 - Average) [1/]

Quantity: Thousand Tonnes

Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 4,248.1 | - | 2,697.8 | - |
| Imports | 1.4 | 0.30 | 251.6 | 16.40 |
| Exports | 1,590.1 | 169.00 | 488.4 | 49.50 |
| Consumption | 2,659.4 | - | 2,461.0 | - |
| Per Capita Consumption (kg) | 83.6 | - | 76.9 | - |

It would be seen from the above that consumption averaged at 5.12 million tonnes during 1964-66, comprising 2.66 million tonnes of fresh fruits and 2.46 million tonnes of vegetables. Per capita consumption at 83.6 kg of fruits and 76.9 kg of vegetables is considered high from European standards. Further, imports constitute a negligible proportion of the aggregate consumption; imports averaged at 1,400 tonnes of fruits and 251,600 tonnes of vegetables over the period. Spanish products enter overseas markets in a big way, total exports having averaged at 2.08 million tonnes, comprising 1.59 million tonnes of fruits and 0.49 million tonnes of vegetables. Exports thus accounted for 38% of the total fruit and 19% of vegetable production in the country.

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1/ Statistics on Fruits and Vegetables Industries of Survey Countries, Volume III of the Report

Production. Total annual production has been reckoned at 6.93 million tonnes, during 1964-66, consisting of 4.23 million tonnes of fruits and 2.70 million tonnes of vegetables. While the output of fresh fruits rose from 3.82 million tonnes in 1964 to 4.75 million tonnes in 1966, vegetable cultivation declined from 2.86 million tonnes to 2.30 million tonnes. Following data relate to the production of major fruit items during 1964-66:

Production of Fresh Fruits in Spain[2/]

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Citrus, of which | 1,884.0 | 1,992.2 | 2,467.8 |
| Navel | 525.2 | 653.5 | 972.6 |
| Sanguina | 506.2 | 471.7 | 533.9 |
| Blanca Selected | 183.5 | 153.7 | 161.3 |
| Lemons | 109.9 | 92.3 | 94.0 |
| Grapefruits | 4.2 | 6.5 | 6.9 |
| Melons | 850.0 | 600.0 | 975.0 |
| Bananas | 383.4 | 373.6 | 390.0 |
| Apples | 300.0 | 350.0 | 350.0 |
| Peaches | 110.0 | 130.0 | 120.0 |
| Table grapes | 52.0 | 85.0 | 110.0 |
| Total (including others) | 3,823.8 | 4,164.3 | 4,756.2 |

2/ Information Economics, Sindiceto National de Frutos Y Productoo Horticola, 1964-66

Citrus fruit is the backbone of Spain accounting for 52% of the total production during 1966, followed by melons 20%, bananas 7%, apples 7%, peaches 3% and table grapes 2%. Among citrus fruits, oranges predominate with 70% share in total citrus production, major varieties being Navels, Sanguina, Verna and Blanca. Production of lemons and grapefruits, however, is inconsiderable.

Fresh Vegetables. Vegetable production was reckoned at 2.30 million in 1966. Major varieties of vegetables grown in Spain, in order of importance include onions, cabbages, capsicums, tomatoes, cauliflowers, artichokes and green beans. Following table indicates production trends of major vegetables in the country:

Production of Fresh Vegetables in Spain 3/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Onions | 772.4 | 781.3 | 781.3 |
| Cabbages | 685.8 | 638.6 | 841.0 |
| Capsicums | 367.3 | 383.0 | 403.0 |
| Tomatoes | 273.3 | 276.0 | 313.2 |
| Cauliflowers | 268.5 | 260.0 | 261.0 |
| Artichokes | 100.0 | 125.0 | 150.0 |
| Green beans | 129.4 | 125.7 | 99.0 |
| Total (including others) | 2,863.0 | 2,926.1 | 2,303.2 |

3/ Information Economics, Sindiceto National de Frutos Y Productoo Horticola, 1964-66

Cabbages, onions and tomatoes account for 37%, 34% and 14% respectively of the total vegetable production in 1966. Cauliflowers, capsicums, are growing in importance in the Spanish agriculture, on account of their strong demand in Europe. Production of artichokes, which has tremendous potential in Europe, went up from 100,000 tonnes to 250,000 tonnes between 1964-66. Increasing quantities of these vegetables are exported from Spain; trade circles feel that in the event of joining ECM, Spain will multiply its exports in the coming years. Among other vegetables, notable are aubergines, sweet potatoes and cauliflowers.

Exports. Being one of the largest horticultural producers of the world, Spain has been dominating the international market of fresh fruits and vegetables. Over 40% of the European requirements of major imported fresh produce are met through supplies from Spain. Total exports of fruits and vegetables averaged at 2.07 million tonnes in 1964-66, having fallen from 2.23 million tonnes in 1964 to 2.12 million tonnes in 1966.

Spanish exports of horticultural produce have been showing a slackening trend in the recent past in view of the restrictions imposed by EEC countries on imports emanating from third countries. Spain, however, has so far been able to survive this competition owing mainly to the superior quality of its produce. Citrus constitutes the most important of the horticultural exports of Spain, having accounted for over 80% of the total fruit exports during 1966. In terms of volume,

its exports declined from 1.33 million tonnes in 1964 to 1.27 million tonnes in 1966 owing to increased competition. Besides citrus, other fruits include bananas, fresh grapes, watermelons, peaches, pears, strawberries and apples. Following table presents the break-up of exports of major fruits:

Exports of Major Fruits in Spain[4/]

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Oranges, tangerines | 1,337.0 | 1,155.0 | 1,278.0 |
| Bananas | 112.7 | 103.3 | 89.5 |
| Grapes | 101.9 | 102.9 | 83.9 |
| Lemons, grapefruit etc | 52.6 | 47.1 | 46.6 |
| Total (including others) | 1,684.7 | 1,504.2 | 1,581.2 |

West Europe constitutes the principal market for Spanish oranges and tangerines, having accounted for over 70% of the total exports emanating from Spain on an average every year. Major buyers of Spanish oranges and tangerines in 1966 included West Germany, 35%, France 21%, UK 10% and Netherlands 8%. Among others, Belgium, Sweden, Ireland and Norway are important markets for Spanish oranges. On account of the slackening trend in its exports to West Europe, concerted efforts are being

4/ Basic Statistics on Fruits and Vegetables Industry of Survey Countries, Volume III of the Report

made to expand trade with East European countries. USSR, for instance, has been increasing its purchases of Spanish oranges and tangerines in the recent past, exports having risen from 21,363 tonnes in 1964 to 30,115 tonnes in 1966.

Lemons and grapefruits do not constitute a very important commodity in the export trade, total exports having amounted to only 46,619 tonnes in 1966 as against 52,581 tonnes in 1964. They are principally directed to France 39% and West Germany 33%. Spanish lemons and grapefruits are being increasingly exported to East European markets particularly Czechoslovakia and Yugoslavia. Exports of these items, have, however, been limited due to lack of adequate production in the country.

Bananas, coming mainly from Canary Island were exported to the extent of 89,467 tonnes in 1966 as against 112,688 tonnes in 1964. The decline in the exports of bananas is mainly attributable to varietal disadvantages suffered by the Canary bananas in the European markets. While only Dwarf Cavandish varieties are grown in Spain, Giant Cavendish varieties including Valery and Lacatan are now in greater demand in major markets of Europe. The Survey revealed that Spanish bananas have in recent years suffered a severe setback in countries like Denmark, France and UK on account of the above mentioned factor. Major buyers include Denmark, Netherlands, West Germany, UK and South Africa. Small quantities of bananas have also been directed to Italy, Switzerland, Ireland and Sweden, though their share in the total trade is not significant.

Spanish grapes are a popular item in Europe; their export volume, however, declined from 101,997 tonnes in 1964 to 83,809 tonnes in 1966. West Germany is the biggest market for Spanish grapes with 35% share in 1966, followed by Sweden, Norway, Ireland and Denmark.

In addition to the above mentioned major fruits, substantial quantities of melons, peaches, apricots, cherries and strawberries are also exported, West Germany, France and United Kingdom being the leading buyers. Total exports of these fruits amounted to 83,247 tonnes in 1965 as against 80,478 tonnes in 1964. UK led the market by taking approximately 45% of the total exports followed by West Germany, France, Switzerland and Italy.

Fresh Vegetables. Tomatoes, potatoes, cabbages, cauliflowers, capsicums, artichokes are the major varieties of vegetables exported presently from Spain; total exports amounted to 534,607 tonnes in 1966 as against 541,407 tonnes in 1964. Vegetable exports are also on the decline on account of Common Market restrictions on third countries. Exports of major vegetables are shown below:

Exports of Fresh Vegetables in Spain[5/]

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Tomatoes | 217.3 | 225.2 | 210.6 |
| Potatoes | 122.9 | 119.8 | 113.9 |
| Total vegetables (including others) | 541.7 | 574.6 | 534.6 |

5/ Basic Statistics on Fresh Fruits and Vegetables Industry of Survey Countries, Volume III B-3.7 of the Report Op. Cit.

It would appear from the above that the decline in the export of vegetables was less pronounced than fruits, exports having declined by 7,000 tonnes over the period. Tomatoes constitute the most important vegetable entering the world markets; exports, however, declined marginally from 217,250 tonnes in 1964 to 210,600 tonnes in 1966. Tomatoes are mainly directed to UK, which accounted for 48% of the total exports in 1966, followed by France, Netherlands, West Germany and Sweden. Canary Islands tomatoes are a household word in the European markets and have a definite consumer following.

Sizable quantities of Spanish potatoes and onions flow to the European markets. While potatoes are exported to the extent of 113,890 tonnes in 1966, onions amounted to 120,000 tonnes. Potatoes are mainly supplied to UK and France whereas onions find increasing clientele in most of the countries of Europe particularly West Germany, UK and Scandanavian countries.

Imports. Being a substantial producer of numerous varieties of fruits and vegetables, Spain offers very limited scope for imported fresh produce. Imports of fruits and vegetables have been negligible in comparison with the total domestic consumption in the country, imports having averaged at 253,000 tonnes, comprising 1,400 tonnes of fruits and 251,600 tonnes of vegetables. In terms of value, imports represented $ 16.70 million as against $ 218.50 million worth of exports over 1964-66, thus reflecting a substantial favourable balance of trade.

It is only in respect of some vegetables like potatoes that Spain relies upon overseas suppliers for meeting its requirements. Despite considerable production and exports, imports of potatoes have sharply risen from 103,583 tonnes in 1964 to 231,024 tonnes in 1966. Potatoes are mainly supplied by France, UK, Netherlands, Poland and Ireland, France having led the market with a share of 34% in 1966. Polish potatoes are becoming increasingly popular in the Spanish market on account of their lower price quotations, supplies having jumped from 4,000 tonnes in 1964 to 15,094 tonnes in 1966.

It is clear from the above that Spain is basically an exporter of horticultural produce, imports forming but a very inconsequential proportion of the total trade. A slackening trend, however, has been noticed in the Spanish exports, mainly on account of EEC restrictive regulations imposed on the import of horticultural produce from third countries. The fruit and vegetable industry has been very active in stirring both Government and public opinion for Spain's entry into the ECM. Measures taken by EEC countries against imports from non-EEC countries are proving to be a serious stumbling block to the growth of exports from non-members particularly Spain, which once held a monopoly in the import trade of the Common Market. It is understood for instance that the Common Market countries normally absorb 75% of Spanish citrus 30% of Ohanse and 50% of Aledo grapes and 30% of Canary Island's bananas. Being the most vital outlet for horticultural produce, restrictions imposed by the Common Market have created a threat to the very base of horticultural export sector of Spain.

Resulting from the request made by Spain to the EEC, certain tariff concessions have since been granted to the Spanish produce. For instance, tomatoes were granted a partial reduction of 50% in tariffs by setting the rate for January and February at 5.5% as against 11% ad valorem. These measures are not however considered adequate for rehabilitating its position in the Common Market.

Side by side, Spain is trying to deversify its exports by expanding its trade with the East European countries. It has also for instance recently established consular relations with Romania in the interests of export promotion.

## B. Processed Fruits and Vegetables

### Market Size

Consumption of canned fruits and vegetables in Spain has been relatively low as compared to fresh produce. Processed items do not form part of the regular menu of the Spanish household, unlike its neighbours. However, with the establishment of a sizable canned industry, consumption of processed foodstuffs has been growing, though at a slow pace, as would be evident from the table given below:

(Next page)

Apparent Consumption of Processed Fruits and Vegetables in Spain 6/
( 1964-66 - average )

Quantity: Thousand Tonnes
Value: Million Dollars

| | Canned Fruits | | Canned Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 230.5 | - | 193.0 | - |
| Imports | 3.1 | 1.10 | 4.6 | 1.50 |
| Exports | 33.1 | 8.40 | 91.0 | 42.0 |
| Apparent Consumption | 200.5 | - | 106.6 | - |
| Per Capita Consumption (kg) | 6.0 | - | 3.3 | - |

Annual consumption of canned fruits and vegetables which averaged 308,100 tonnes over 1964-66, appears to be small for a large population of 32 million. The per capita consumption of canned fruits and vegetables was merely 9.3 kg, as against 160.5 kg of fresh produce. In view of the inadequate domestic demand, the industry has been constantly on the look out for overseas markets for disposing off its produce; exports accounted for 29% of the total production of processed fruits and vegetables during 1964-66. The Survey revealed that the indigenous demand for canned items is showing an annual growth rate of 8% over the period. This trend is likely to continue on account of the rising personal incomes and growing usage of covenience foods.

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6/ Syndicate Nacional de Frutos Y Productos Horticolas, Madrid

The productive capacity of the processing industry in the country far exceeds the total domestic requirements: imports at 7,700 tonnes comprise mostly tropical fruit preparations.

Production

The Industry. The adequate availability of different varieties of fruits and vegetables in Spain has led to the establishment of a sizable fruit and vegetable processing industry, which is characterised by the operation of innumerable units of varying sizes. In respect of citrus, tomatoes and deciduous fruits, large scale modern operations however exist in the country and are active in the export trade. Canning units are mostly locally owned with the exception of a few factories like the one recently set up by Libby, McNeil Libby, Chicago for the manufacture of canned olives, which represent a large volume item among the Spanish products. Though recent years have witnessed substantial expansion in the processing capacity, the fruit trade continues to be oriented towards the fresh market, thus relegating the canning industry to a secondary position in the fruit and vegetable trade of the Country.

The present spread of the industry is as follows:

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## Spread of the Spanish Processing Industry 7/

| Product Line | Location | Approximate number of units |
|---|---|---|
| Citrus Juice Concentrates | Valencia | 50 |
| | Castellon | 15 |
| | Murcia | 8 |
| | Seville | 2 |
| | Hulvea | 1 |
| Deciduous Fruits | Murcia | 120 |
| | Velncia | 60 |
| | Logrono ) Navarra ) | 50 |
| | Lerida | 1 |
| | Badajoz | 6 |
| Vegetables (tomatoes, artichokes, asparagus, beans, peas, etc.) | Valencia | 80 |
| | Logrono ) Navarra ) | 100 |
| | Murcia | 100 |
| | Badajoz | 100 |
| | Total | 693 |

Being the most important horticultural growing areas, Murcia, Valencia, Logrono and Navarra, have the largest number of processing units specialising in the above mentioned product lines. Seville and Badajoz have 28 large-sized units, mainly oriented towards the

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7/ Field Survey

manufacture of fruit and vegetable preparations. On account of the intensive developemtal activity undertaken in these areas, these valleys are likely to become the principal centres of fruit and vegerable processing in the future years. The Government of Spain has since initiated a 'Plan Badajoz', a Government sponsored and financed irrigation project, for the systematic development of this area with the objective of irrigating eventually a total of approximately 120,000 hectares of arable land in the valleys of Badajoz and Seville. Having excellent soil and climate suitable for growing horticultural crops, they are predicted to be the main future fruit and vegetable supplying areas of Spain. The trade feels that these two valleys would eventually constitute the future low cost supplying areas for horticultural produce to the whole of Europe.

With a view to streamling production and marketing steps are being initiated to eliminate uneconomic small-scale units by the Government of Spain. A 'programme of concerted action' under the Government's Plan of Economic and Social Development has recently been initiated for encouraging the small enterprises to amalgamate and modernise their plants with financial and technical assistance from the Government. Consequent to this programme, 21 consortia of canning enterprises have been established during 1960-65.

Manufacture of modern canning equipment has also been started in the country with a view to minimising foreign exchange expenditure required for setting-up

processing units in the country. Trade believes that these steps aimed at expansion and rationalisation of production would lead to manifold increase in production as well as exports.

The total output of the industry went up from 365,400 tonnes in 1963 to 488,500 tonnes in 1965, thereby reflecting a rise of over 34% during the period. Fruit preparations constitute the principal item in the processing sector, having accounted for over 50% of the aggregate output in 1965. Production has been by and large registering a steady growth as shown below:

Production of Processed Fruits and Vegetables in Spain 8/

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Pulps and Canned Fruits | 136.1 | 169.0 | 194.3 |
| Fruit Pulps & Paste | 93.2 | 113.7 | 139.5 |
| Fruit in Syrup | 42.9 | 55.3 | 54.8 |
| Citrus Products | 40.0 | 32.3 | 40.4 |
| Juices | 29.1 | 21.7 | 26.7 |
| Other Citrus Products | 10.9 | 7.7 | 13.7 |
| Marmalades | 7.4 | 7.9 | 9.3 |
| Fruit Juices (non citrus) | 4.3 | 5.5 | 7.5 |
| Vegetable Products | 158.0 | 175.4 | 210.7 |
| Tomato Products | 76.4 | 86.3 | 108.6 |

(Contd. next page)

8/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, Table B-I.11 of the Report.

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Other Vegetables | 81.6 | 89.1 | 102.1 |
| Miscellaneous Products | 19.6 | 19.5 | 26.3 |
| Total | 365.4 | 409.5 | 488.5 |

Apricots and peaches, the two important fruits processed in Spain in the form of pulps, preserves and canned fruits, have accounted for about 70% of pulps and 80% of fruits in syrup. Orange juice is the most important item among citrus products, followed by lemon juice. There is also an increasing manufacture of citrus by-products like peels, essential oils, etc., production having doubled from 6,800 tonnes to 13,600 tonnes during 1963-65.

Among processed vegetables, tomatoes, asparagus and capsicums are important. Tomatoes constitute over 50% of the total output of processed vegetables; others include canned asparagus and capsicums.

As indicated earlier, the processing sector is confronted with many basic problems including high cost of production, fragmentation of the industry resulting in splintering of production, unsystematic and expensive distribution and promotion. While on the one hand, it has initiated the integrated development of Seville and Badajoz valleys to enable Spain to become the low cost supplier of canned fruits and vegetables to the growing European markets, it has been extending assistance to the industry in undertaking overseas market surveys, promotion and publicity, and establishment of trade centres abroad, on the other.

Exports. Spanish exports of processed foodstuffs rose from 119,460 tonnes in 1964 to 139,330 tonnes in 1966. Vegetables, mainly comprising tomato products, accounted for about 75% (89,520 tonnes in 1964 and 102,970 tonnes in 1966) of the total. Of the remaining 25%, canned juices evinced an increase from 20,730 tonnes to 21,340 tonnes and canned fruit from 9,210 tonnes to 15,020 tonnes during the corresponding period.

Tomato products (13% of total vegetables), capsicums and asparagus are mainly directed to USA (48%), UK, Canada and Italy.

Fruit and vegetable juices, mainly citrus juices, comprising single strength and concentrates are a large volume item, exported to West Germany (33%), UK, Netherlands and Sweden.

Exports of pulps and preserved fruits, especially of apricots and peaches, flow mainly to UK (39%), West Germany and France. Exports have picked up rapidly on account of annual supply contracts entered into between the Spanish exporters and the overseas institutional buyers.

Cost of Spanish canned products is relatively higher than its European competitors and hence the Government grants a total drawback of 12% over the FOB value of exports.

Imports. Spanish imports of processed fruits and vegetables constitute but an inconsequential proportion of the total consumption of fruits and vegetables in the country, imports having averaged at 7,700 tonnes in 1964-66. Major items currently imported include pineapples, canned vegetables and fruit juices, pineapples being the most significant item. The low volume of imports is mainly attributable to the inadequate demand as well as the existence of adequate production base in the country.

Canned fruits with sugar content are subject to an annual global quota, 1968 imports being limited to $ 0.50 million. This quota is allocated by the Spanish Commerce Ministry on the basis of past performance of individual importers. Canned fruits without sugar, however, are allowed to be imported freely without any restrictions.

The current market size for pineapple products has been estimated at 400,000 cases (24x2½). While data on pineapple products are not available, annual imports are expected to range between 5,000 and 6,000 tonnes. Discussions with the trade indicated that Libby's and Del Monte are the brand leaders, their share having together averaged at 50% of the total market.

Import Policy and Regulations

While there are no special restrictions applicable to the imports of fresh and processed fruits and vegetables coming into Spain, all imports are subject to tariff duties, as given in Volume V, Chapter VII (f) of the Report.

Whereas transit imports are subject to a relatively lower rate of duty, imports meant for consumption are subject to a higher duty. For instance, whereas ware potatoes are subject to a 15% ad valorem duty in transit, those meant for domestic consumption have to pay a 22% ad valorem duty. Likewise avocados and pineapples are exempt from duty in case of transit; 2% duty is imposed in respect of those intended for sales in the country. Duties in general are low except for preserved fruits and vegetables where duties range between 10% for canned capsicums to 15% for citrus marmalades and 30% for preserved fruits.

In addition to the tariff duties as indicated above, imports are subject to compensation tax and fiscal tax. While compensation tax ranges from 2% in case of seed potatoes to 6% for fresh vegetables and 8% for preserved fruits, fiscal tax ranges between 1.5% for fresh vegetables to 6% for provisionally preserved vegetables to 7% for fresh citrus and to 8% for preserved fruits with added sugar. It would thus appear that restrictive policies are followed with a view to giving protection to the domestic industry.

## 5.8 SWITZERLAND

### Background

With a high per capita income of $ 1,450, Switzerland offers a large market for fruits and vegetables, both fresh and processed.

Production of fruits and vegetables in Switzerland is not so strong as compared to its neighbours in Central and Southern Europe. Factors like mountainous terrain, unfavourable climatic conditions and limited availability of arable land have been responsible for inadequate production.

Average annual imports of fresh fruits and vegetables totalling $ 113 million and processed items $ 21 million between 1964 and 1966 represent the volume of demand for a population of 6 million, re-exports being negligible. Increasing discretionary spending has been acting as a powerful stimulus for expanding imports of tropical fruits.

### A. Fresh Fruits and Vegetables

### Market Size

Swiss apparent consumption of fresh fruits and vegetables has been estimated at 2.5 million tonnes (50% constituting potatoes) per annum during 1964-66. The following table furnishes data on apparent consumption in Switzerland:



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GERMANY
SCHAFFHAUSEN
FRANCE
BASLE
WINTERTHUR
ST. GALLEN
BADEN
OLTEN
ZÜRICH
AUSTRIA
BIEL
LUZERN
SCHWYZ
NEUCHATEL
BERNE
CHUR
DAVOS
FRIBOURG
LAUSANNE
LAC LEMAN
MONTREUX
BELLINZONA
LOCARNO
GENEVA
ITALY
LUGANO

Apparent Consumption of Fresh Fruits and Vegetables in Switzerland 1/
(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 587 | - | 1,495 | - |
| Imports | 334 | 75.9 | 170 | 37.3 |
| Exports | 9.9 | 0.6 | 43 | 2.5 |
| Apparent consumption | 911.1 | - | 1,622 | - |
| Per capita consumption (kg) | 151.8 | - | 272 | - |

Domestic production has been estimated to meet 81% (2 million tonnes) of the home requirements while the remaining 19% (514,000 tonnes) valued at $ 113.2 million accounted for imported supplies. Swiss exports during the corresponding period averaged at 53,000 tonnes valued at $ 3.2 million.

Production. Out of 2 million tonnes of total fruit and vegetable production in Switzerland (Table below), potatoes account for about 60%, fruit crops 29% and vegetables 11%. Table and cider apples, pears, plums and cherries are the important fruit crops. Carrots, tomatoes and salad type vegetables are significant in market gardening.

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1/ OECD Commodity Trade Statistics, Paris

Production of Fresh Fruits and Vegetables in Switzerland 2/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| **Fresh Fruits** | | | |
| Apples, table | 179 | 153 | 220 |
| Apples, cider | 210 | 101 | 150 |
| Pears | 180 | 100 | NA |
| Plums | 36 | 50 | 50 |
| Total fresh fruits incldg. others) | 663 | 456 | 636 |
| **Fresh Vegetables** | | | |
| Potatoes | 1,350 | 1,220 | 1,310 |
| Lettuce | 43 | 45 | 46 |
| Carrots | 23 | 24 | 26 |
| Tomatoes | 16 | 18 | 22 |
| Total fresh vegetables incldg others | 1,552 | 1,420 | 1,513 |
| Total | 2,215 | 1,876 | 2,149 |

According to the information gathered from the Federal Statistical Office, Berne, production of vegetables (excluding potatoes) has been declining over the past few years in view of the non-availability of skilled labour and shortage of cultivable land. Output of fruit crops, on the

2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III A.8, of the Report

other hand, has been registering appreciable increases as a result of the measures taken by the Federal Alcohol Authorities. The measures include elimination of uneconomic and old orchards, suitable professional training to the producers, requisite credit facilities and encouragement to horticulturists through crop researches and experiments. Swiss fruit production, consequently, has virtually doubled between 1960 and 1966, though output during 1964 declined due to bad weather.

Imports. Despite rising horticultural production, Swiss imports of fresh fruits and vegetables, in recent years, have been on the rise from $ 104.2 million to $ 122.3 million between 1964 and 1966. Bananas, citrus fruits, strawberries, tomatoes and lettuce constitute major items of imports as shown below:

Imports of Selected Fresh Fruits and Vegetables into Switzerland 3/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh Fruits | | | | | | |
| Oranges | 95.4 | 14.6 | 99.8 | 16.2 | 97.4 | 16.0 |
| Citrus | 18.1 | 2.8 | 17.6 | 2.8 | 18.3 | 2.9 |
| Grapes | 31.6 | 5.8 | 35.6 | 6.4 | 38.3 | 7.1 |
| Peaches | 28.3 | 5.4 | 25.2 | 5.6 | 26.0 | 5.9 |

(Contd. next page)

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-2.8, of the Report, Op. Cit.

| | 1964 Quantity | 1964 Value | 1965 Quantity | 1965 Value | 1966 Quantity | 1966 Value |
|---|---|---|---|---|---|---|
| Straw-berries | 7.6 | 3.0 | 8.0 | 3.8 | 7.4 | 3.5 |
| Bananas | 54.2 | 11.9 | 56.1 | 12.2 | 60.8 | 12.8 |
| Total (incldg others) | 304.9 | 72.2 | 358.1 | 83.8 | 340.2 | 81.6 |
| Fresh Vegetables | | | | | | |
| Tomatoes | 19.9 | 4.5 | 24.8 | 5.5 | 23.7 | 5.3 |
| Onions | 11.6 | 1.5 | 11.6 | 1.6 | 12.1 | 1.8 |
| Potatoes | 9.8 | 8.5 | 20.5 | 23.8 | 18.2 | 21.0 |
| Lettuce | 23.7 | 5.6 | 25.6 | 5.8 | 27.6 | 6.2 |
| Cauliflowers | 10.7 | 2.2 | 12.9 | 2.6 | 10.9 | 2.6 |
| Total (incldg others) | 147.0 | 32.0 | 184.9 | 39.2 | 180.2 | 40.7 |
| Total | 451.9 | 104.2 | 534.0 | 123.0 | 420.4 | 122.3 |

Swiss market absorbs about 60,000 tonnes of banana imports valued at $ 12.6 million per annum, Honduras, Guatemala, Colombia and Ecuador being the main suppliers.

Annual average import of citrus fruits has been stable around $ 19 million during 1964-66. Italy is the principal supplier accounting for 40% of citrus fruits and 80% of lemon imports. Other major suppliers include Spain, Israel, Tunisia, South Africa and Brazil.

Imports of grapes have been steadily increasing and reached a record level of 38,300 tonnes valued at $ 7.1 million during 1966. The varieties preferred in this market

are Alphonso Lavelle, American Tessin, Spanish Chassels and Aledo and Italian Rosetti. During the European grape season, Italy and France meet the entire grape requirements of the Swiss market. The off-season (November-May) suppliers include South Africa, Spain and Argentina.

Temperate fruits like peaches, apricots, strawberries and billberries which figure prominently in the Swiss import trade are usually supplied by the European neighbours. Only in the case of strawberries, USA and South Africa enter into Swiss market as off-season suppliers.

Total vegetable imports increased $ 32 million in 1964 to $ 40.7 million in 1966, showing a growth rate of 12.8% per annum. Cauliflowers, carrots, tomatoes and lettuce are important among.Swiss fresh vegetable imports. Italy is by far the largest supplier of cauliflowers and carrots with 85% and 73% shares respectively in 1966, though her share in the Swiss tomato market was only 35%. Spain in the other major supplier of tomatoes followed by France and Morocco. Lettuce is principally exported by Netherlands.

Exports. Exports of fresh fruits and vegetables rose from $ 2.9 million in 1964 to $ 4.1 million in 1966. Principal export items comprise potatoes and cherries. West Germany, Austria, France, Yugoslavia and Italy are its principal customers.

While detailed statistics relating to exports of fresh fruits and vegetables are provided at Volume II, A-3.8, of the Report, the following table presents a summary:

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Exports of Selected Fresh Fruits and Vegetables from Switzerland 4/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh Fruits | 13.1 | 0.7 | 9.7 | 0.78 | 6.9 | 0.8 |
| Fresh Vegetables | 37.8 | 2.2 | 32.5 | 2.03 | 59.2 | 3.3 |
| | 50.9 | 2.9 | 42.2 | 2.81 | 66.1 | 4.1 |

Import Policy & Regulations

With a view to ensuring continuity in supplies and providing adequate protection to prospective home producers, Swiss authorities have devised a 'Three phased system' for import of fruit and vegetables. During the first phase, fresh fruits and vegetables are admitted without quantitative restrictions when there is little domestic production. Imports are restricted during the second phase when home produce starts arriving in the market. During the third phase when production fully meets domestic demand, imports are totally prohibited. Swiss Government gives 10 days notice to the countries most likely to be affected when it proposes to change from one phase to another. In addition, there is a provision compelling the importers to buy specific quantities of home produce in relation to the imported goods. Table apples is a case in point.

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4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Vol. III, Table A-3.8, of the Report

Channels of Distribution

Co-operative unions, retailers' purchasing organisations and independent agents, and wholesalers are the three principal types of distribution channels prevailing in Switzerland. Union of Swiss Co-operatives at Zurich and Denner, and Market Group in Zurich are some of the major organisations importing fresh fruits and vegetables. USC and Migros, for instance, imported fresh produce to the tune of $ 45.9 million and $ 59.6 million respectively, during 1966. Together they control a total of 3,850 retail outlets. Besides, VEGE (10 wholesalers and 1,632 retailers), TOURA (540 retail outlets) and LIGA (527 shops), the international chains, import directly.

Grading and Packing

Swiss standards for fruits and vegetables are similar to those of OECD. General standards of packing in Switzerland are very high, packing materials used should conform to the Swiss phyto-sanitary regulations, which are scrupulously enforced. Phyto-sanitary taxes ranging between 25 to 30 centimes are collected by customs authorities at the Swiss borders.

Publicity

Swiss Fruits Union is the competent inter-professional body for Fruit Publicity Programme in Switzerland. Financial outlay of the Union's publicity programme is equally shared by the growers and traders to the extent of 25% each (a levy each of 10 centimes per 100 kg is made on growers and traders) and the remaining 50% is made available by Government. Under the

Swiss Alcohol Law 1949, the Government collects taxes on alcohol and encourages consumption of fresh fruits and juices.

During 1963-64 the Swiss Fruit Union spent about $ 203,000 on the fruit publicity programme. Publicity for vegetables, however, does not fall under the Alcohol Law. Traders and growers finance the vegetable publicity programme themselves.

## B. Processed Fruits and Vegetables

### Market Size

The apparent consumption of processed fruits and vegetables has almost remained stagnant in Switzerland over the last three years, though it doubled itself over the last decade. Following data present details of average annual apparent consumption of processed fruits and vegetables over 1964-66:

Apparent Consumption of Processed Fruits and Vegetables in Switzerland 5/

(1964-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 60.0 | - | 70.0 | - |
| Imports | 22.0 | 8 | 30.0 | 13 |

(Contd. next page)

5/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, Table B-1.8, B-2.8 and B-3.8, of the Report.

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Exports | 3.0 | 3 | 7.0 | 9 |
| Apparent Consumption | 79.0 | - | 93.0 | - |
| Per Capita Consumption (kg) | 13.3 | - | 16.1 | - |

It would be inferred from the above that the consumption of processed items in Switzerland has been high during the past three years showing a per capita consumption of 29.4 kg comprising 13.3 kg of fruits and 16.1 kg of vegetables. Domestic production met 76% of the total demand of fruits and vegetables over the period. Imports, however, constitute an important segment of the market.

Production. Production during 1964-66 has been estimated in consultation with the major canners in Switzerland at 130,000 tonnes in 1966 comprising 60,000 tonnes of fruit preparations and 70,000 tonnes of vegetables. Beans and peas reportedly constitute the major products in the domestic sector, having accounted for over 40% of the total production. Among others, vegetable concentrates, apple sauce, prunes, jams and soups are important.

There are in all 11 canneries in Switzerland, Hero Conserven being the most important. Discussions indicated that majority of them are large-scale operations, six of them accounting for 90% of the total production. Details of Swiss production of processed fruits and vegetables are provided at Volume IV, Table B-1.8, of the Report.

Exports. Exports of processed fruits and vegetables are not substantial averaging at 10,000 tonnes over 1964-66. A growing trend in exports has however been witnessed in the recent past, exports having risen from 9,000 tonnes in 1964 to 13,000 tonnes in 1966, vegetable soups being the major export item. Fruit preparations comprising mainly fruit pulps and purees, registered an increase from 2,047 tonnes in 1964 to 2,836 tonnes in 1966. Swiss vegetable soups particularly Knoor and Maggi brands, having established an excellent reputation among the neighbouring countries of Europe, were exported to the tune of 7,359 tonnes in 1966 as against 6,039 tonnes in 1964. Trade forecasts rapid expansion in the exports of soups in the years to come on account of their superior quality; they accounted for 63% of the total exports of processed fruits and vegetables in 1966.

Imports. Despite sizeable production, imports of processed fruits and vegetables have been growing over the years. While detailed statistics on imports are provided at Volume IV, Table B-2.8, following information outlines the volume of imports of major fruit preparations during 1964-66:

Imports of Fruit Preparations 6/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Candid Fruits | 499 | 532 | 402 |
| Fruit Puree | 238 | 233 | 297 |
| Fruit pulps without sugar | 1,708 | 2,996 | 2,622 |
| Pineapples | 6,376 | 6,993 | 7,737 |
| Fruit, others in syrup | 10,687 | 13,036 | 12,750 |
| Total | 19,508 | 23,790 | 23,808 |

6/ Foreign Trade Statistics of Switzerland

Processed pineapples constitute the single most important product in the Swiss import trade, having accounted for 32% of the total during 1966. Other fruits in syrup including peaches, apricots, fruit cocktails, berries and cherries were imported to the extent of 12,692 tonnes in 1966 as against 10,687 tonnes in 1964. Fruit pulps and purees have also fared well over the period. excepting in 1965.

Though separate statistics on the imports of most of the individual items are not available, trade discussions revealed that the share of imports in aggregate consumption varies widely from one product to another. While the entire demand for pineapples, peaches and fruit cocktails is met through imports, 50% of the total requirements of fruit salads, strawberries and raspberries are catered through external supplies. Pears, apricots and cherry preserves are principally manufactured in the domestic sector.

i) Pineapples. Being the most important fruit item in the Swiss market, pineapple products have been steadily gaining consumer acceptability, imports having risen from 6,376 tonnes in 1964 to 7,737 tonnes in 1966. Processed pineapples mainly comprising slices and tidbits are supplied by USA, Philippines, Taiwan and South Africa. While the market share of USA declined from 64% in 1964 to 49% in 1966, Philippines and Taiwan improved their stakes from 15% and 13% in 1964 to 20% and 25% respectively in 1966. Small quantities of pineapples also hail from South Africa, Kenya and Malaysia. Swiss consumers are normally brand conscious except when price and quality differentials are

too wide. A comparison between unit prices of major sources of supply in 1966 can be had from the following table:

Comparative CIF Prices of Processed Pineapples 7/

| | $/Tonne |
|---|---|
| Malaysia | 390 |
| USA | 314 |
| Philippines | 303 |
| South Africa | 278 |
| Kenya | 255 |
| Taiwan | 245 |

Despite lower price quotations, products emanating from Kenya and South Africa have not been moving fast in the Swiss market on grounds of quality. Taiwan, on the other hand, commands a better reputation in terms of superior quality and competitive price. With the participation of major American canneries in the development of pineapple industry in Taiwan, exports from USA declined between 1964-66. Trade discussions revealed that the Swiss market offers scope for new entrants with competitive products.

ii) Other Fruits. This group includes processed apricots, peaches, fruit cocktails, cherries, berries and other miscellaneous fruits. The Survey revealed that peaches and fruit cocktails constitute the principal items in this group, total imports having risen from 10,687 tonnes in 1964 to 12,692 tonnes in 1966. Trade estimated the following break-down for these items during 1966:

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| | |
|---|---|
| Peaches | 40% |
| Fruit Cocktails | 30% |
| Cherries and Berries | 15% |
| Nuts and Other Fruits | 15% |

Major suppliers of these items include USA, South Africa, Australia, Taiwan and Spain. USA accounted for 50% of the total supplies during 1966, followed by South Africa 7%. Imports from India amounted to 6 tonnes during the same year mainly comprising mango slices.

iii) Pulps and Purees. Switzerland imports sizeable quantities of fruit concentrates and candid fruits; total imports of concentrates amounted to 2,919 tonnes and candid fruit 402 tonnes in 1966. Fruit concentrates mainly comprise puree and apricot pulps (without added sugar) required by the local processing industry. Spain is the major supplier accounting for 72% of the market requirements in 1966. The demand of the local processing industry for pulps and purees is envisaged to increase rapidly in the coming years. Here lies an opportunity for interested Indian exporters to establish items like mango nectar and guava nectar manufactured from Indian pulps.

iv) Jams and Jellies. About 200 tonnes of speciality items like English orange, marmalades and grapefruit and lemon jams are, however, imported from UK, South Africa and Israel.

v) Fruit Juices. Sizeable quantities of fruit juices are imported into Switzerland, grape juices being the most dominant product. Imports of major items among juices are given below:

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Imports of Fruit Juices into Switzerland 8/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Grape Juice Unconcentrated | 2,399 | 2,382 | 2,861 |
| Grape Juice Concentrated | 66 | 25 | 435 |
| Grape Juice in Bottles | 39 | 63 | 60 |
| Vegetable Juices | 853 | 864 | 815 |
| Lemon Juices without sugar | 324 | 310 | 357 |
| Other Juices Unconcentrated | 2,838 | 2,774 | 3,139 |
| Other Fruit Juices Concentrated | 1,461 | 1,752 | 1,538 |
| Sweetened Fruit Juices in Bottles | 95 | 108 | 120 |
| Other Sweetened Fruit Juices | 97 | 151 | 92 |
| Total | 8,182 | 8,429 | 9,417 |

Unconcentrated grape juice accounted for 31% of the total imports of fruit juices during 1966. Different varieties of juices including tomato, pineapples, peach and berries are also imported, for which separate statistics are not available.

Imports of concentrated grape juices, as indicated in the above table, registered a remarkable rise reflecting the growing nature of the Swiss fruit drink industry.

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8/ Foreign Trade Statistics of Switzerland

Imports of concentrated citrus juices are not, however, sizeable, single strength citrus juices being the more important item.

Fruit juices in concentrated form are principally supplied by Israel, USA, Italy and West Germany. While citrus juices are mainly supplied by Israel and Spain, pineapple juices originate from Philippines and Kenya. In respect of orange and grapefruit juices (single strength) Israel led the market, with a share of 37% in 1966. Some quantities of berry juice are also imported for the use of caterers and reconstitution plants.

It would be seen from the above that Switzerland is a growing concentrated juice market. Even the single strength juices currently imported into the country come in barrels mostly from repacking and manufacture of syrups and other diluted fruit drinks. The market for single strength juices in retail packs being limited, greater scope exists for concentrated juices of citrus, grape and berry.

vi) Canned Vegetables. Being a major vegetable processing country, Switzerland offers a very limited market for imported vegetable products. Small quantities of specialised items are imported both for the use of household and institutional consumers. Following table presents the imports of processed vegetables during 1964-66:

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Imports of Processed Vegetables into Switzerland 9/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Tomato in Containers of 5 kg or more | 4,962 | 5,075 | 5,113 |
| Tomato in Containers of 5 kg or less | 6,506 | 6,114 | 9,768 |
| Sauerkraut | 140 | 283 | 386 |
| Asparagus | 3,767 | 3,151 | 4,593 |
| Total (incldg. others) | 21,131 | 21,651 | 25,207 |

Besides the above, small quantities of mixed, dehydrated and semi-prepared vegetables are also imported mainly for the use of processors.

vii) Tomato Products. Tomato products are imported in retail (less than 5 kg) and bulk (over 5 kg) packs, the former representing about 66% of the total. Imports of smaller packs have been upward, having risen by about 50% over 1964-66. They are mainly supplied by Italy (79%).

Tomatoes in bulk containers were imported to the extent of 5,113 tonnes in 1966 as against 4,962 tonnes in 1964. Here again, Italy leads the market with 46% share followed by Hungary 19% and Bulgaria 13%. Bulgaria has successfully penetrated into the market over the past three years mainly on account of lower price quotations and

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9/ Foreign Trade Statistics of Switzerland

aggressive sales promotion. Following table gives a comparative picture of prices of tomato products from major sources:

Average CIF Prices of Tomato Products by Major Sources 10/ (1966)

| | $/Tonne |
|---|---|
| Tomato Containers of 5 kg or more | |
| Italy | 411 |
| Portugal | 305 |
| Hungary | 257 |
| Bulgaria | 259 |
| Tomato Containers of 5 kg or less | |
| Italy | 239 |
| Portugal | 330 |
| Spain | 206 |
| Bulgaria | 222 |

Bulgarian prices for tomato products for both small and large containers are by far the lowest, highest prices having been quoted by Italy.

viii) Asparagus. Asparagus is a growing item in the Swiss market for imported vegetables; imports have risen from 3,767 tonnes in 1964 to 4,593 tonnes in 1966. USA has been the leading supplier; its share,

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10/ Foreign Trade Statistics of Switzerland

however, declined from 88% in 1964 to 47% in 1966, when Taiwan annexed 45% of the market. Taiwan's asparagus was quoted at $ 872 as against $ 986 per tonne of USA in 1966.

With the exception of tomato products and asparagus, Swiss market hardly offers any prospects in respect of imported processed vegetables. Tomato concentrates have a high growth potential in view of the increasing manufacture of tomato based products like beans in tomato sauce, catsup and other related items.

Channels of Distribution

Though dominated by importing agents, the market for food products is being gradually taken over by wholesale buying organisations. With a view to giving effective competition to these multipurpose organisations, the leading importing wholesalers have set up an association called COLGRO, for joint purchases of its members.

Retail merchandising in Switzerland is handled by consumer cooperatives and chain stores, private retailers affiliated to voluntary chains and private unaffiliated retailers.

Following table indicates the present structure of food merchandising in Switzerland. The major voluntary chains along with total number of outlets are listed below:

(Next page)

Major Voluntary Chains in Switzerland 11/

| | Total number of Outlets | | Self Service Complete | | Self Service Partial | |
|---|---|---|---|---|---|---|
| | 1963 | 1965 | 1963 | 1965 | 1963 | 1965 |
| Union Usego | 4,228 | 4,133 | 460 | 677 | 2,116 | 2,305 |
| ALRO | 4,872 | 4,918 | 209 | 295 | 1,572 | 1,928 |
| Kolonial | 1,169 | 1,208 | 33 | 38 | 208 | 241 |
| Touro | 1,032 | 1,218 | 95 | 196 | 417 | 378 |
| Liga | 528 | 529 | 82 | 84 | 118 | 120 |
| SHG | 572 | 526 | 22 | 31 | 76 | 84 |
| Total | 12,401 | 12,532 | 901 | 1,321 | 4,507 | 5,056 |

It is apparent that over 12,000 stores are affiliated to six voluntary chains which reportedly account for over 50% of the total food market in Switzerland. Besides, complete self-service stores have grown faster than the partial self-service units during 1963-65.

The establishment of powerful voluntary chains performing the dual functions of wholeselling and retailing made it inevitable for independent stores to combine themselves into vertical organisations for meeting competition effectively. A number of retailers in Switzerland have grouped themselves into joint purchasing organisations with a view to centralising their activities. Major buying groups presently operating in Switzerland are listed below:

(Next Page)

11/ Toute L'alimentation, C.N.C.IA - FIA - UNIA, Paris, 1966-67

Major Buying Groups in Switzerland 12/

| | Total No. of Outlets 1963 | 1964 |
|---|---|---|
| USC | 3,260 | 3,150 |
| MIGROS | 413 | 433 |
| VOLG | 626 | 658 |
| DENNER | 179 | 138 |
| COOP. ZURICH | | 213 |
| MERCURE | 193 | 190 |
| GIRO | 40 | 36 |
| Total (incldg. small groups) | 5,220 | 5,050 |

In addition to the above cooperative wholeselling groups, the field survey revealed that USEGO is a major retailer group with a membership of 4,200 stores. Besides the affiliated retail outlets, there exist a few independent retail stores operating in the processed foods market, thereby indicating the powerful trend towards centralised buying and selling.

Import Policy and Regulations

While there are no special restrictions on the import of processed fruits and vegetables in Switzerland, high tariff duties have been imposed with a view to affording protection to the sale of local products in the country. Duties leviable on the import of processed fruits and vegetables appear at Annexure VII(g), Volume V, of the Report.

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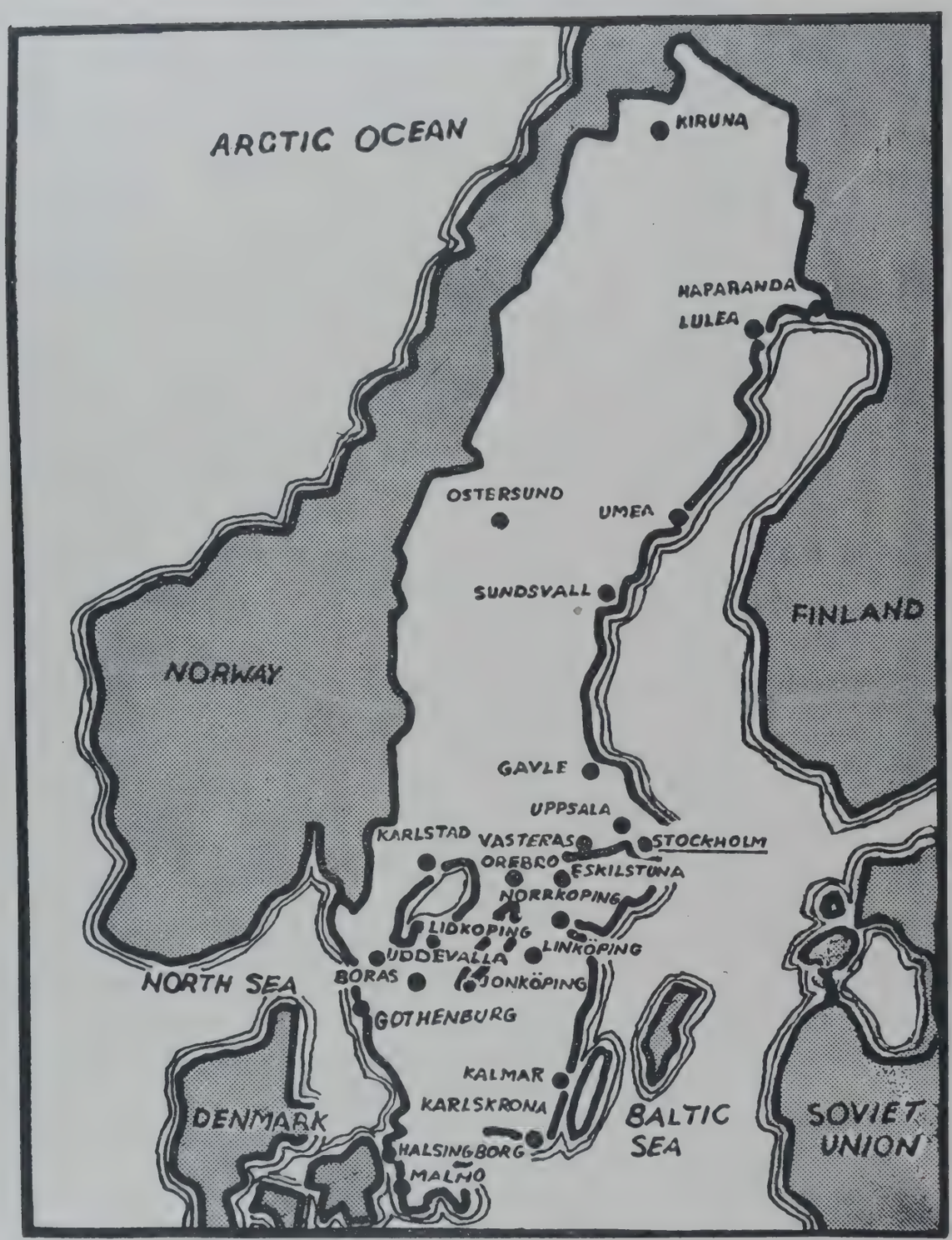
12/ Toute L'alimentation, C.N.C.I.A - FIA - UNIA, Op.cit.


ARCTIC OCEAN
KIRUNA
HAPARANDA
LULEA
OSTERSUND
UMEA
SUNDSVALL
FINLAND
NORWAY
GAVLE
UPPSALA
KARLSTAD
VASTERAS
STOCKHOLM
ORBRO
ESKILSTUNA
NORRKOPING
LIDKOPING
LINKÖPING
UDDEVALLA
BORAS
JONKÖPING
NORTH SEA
GOTHENBURG
KALMAR
KARLSKRONA
DENMARK
BALTIC SEA
SOVIET UNION
HALSINGBORG
MALMO

## 5.9 SWEDEN

### Background

Among European countries in general and Scandinavia in particular, Sweden constitutes one of the wealthiest and most developed countries, its living standards having been second only to that of USA. With a total population of 7.8 million, Sweden's GNP was reckoned at $ 21.33 billion in 1966, per capita private consumption in 1966 amounted to $ 1,420, of which food accounted for 25.9%.

Production of fruits and vegetables, both fresh and processed, has been substantial at 2.02 million tonnes of fresh produce and 0.17 million tonnes of processed items during 1964-66. Despite sizable production at home, Sweden is one of the most important consuming markets of Europe, with annual imports of the order of $ 131.60 million comprising $ 113 million of fresh produce and $ 18.60 million of processed preparations.

### A. Fresh Fruits and Vegetables

### Market Size

Per capita consumption of fresh fruits and vegetables reckoned at 76 kg of fresh fruits and 238 kg of fresh vegetables, is one of the highest in the whole of Europe. Following table gives an idea of

the apparent consumption of fresh fruits and vegetables for the period 1964-66:

Apparent Consumption of Fresh Fruits and Vegetables in Sweden (1964-66 - average) 1/

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 305.0 | - | 1,715.0 | - |
| Imports | 296.0 | 80.0 | 154.0 | 33.0 |
| Exports | 6.0 | 2.4 | 11.4 | 3.8 |
| Apparent Consumption | 595.0 | - | 1,857.0 | - |
| Per Capita Consumption (kg) | 76 | - | 238 | - |

It would be clear from the above that despite sizable production at home, Sweden constitutes an important market for imported fresh produce in Scandinavia, total imports having averaged at 450,000 tonnes, comprising 296,000 tonnes of fruits and 154,000 tonnes of vegetables. Exports are insignificant at 17,400 tonnes over the period. The import-oriented nature of the market is mainly attributable to the limited varieties of fruits and vegetables being grown

1/ Ministry of Agriculture, Stockholm, Sweden

in the country due to climatic restrictions. In respect of vegetables, Sweden's reliance on overseas suppliers is relatively less owing to substantial domestic production.

Production. Total production of fruits and vegetables amounted to 2.02 million tonnes comprising 1.71 million tonnes of vegetables and 305,000 tonnes of fruits during 1964-66. Major fruits and vegetables grown in the country include apples, pears, plums and cherries among fruits whereas potatoes, carrots, cabbages and peas are important among vegetables. Following table indicates the production trend of major fruits and vegetables in Sweden over 1964-66:

Production of Fresh Fruits and Vegetables in Sweden 2/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| **Fruits** | | | |
| Apples | 304.8 | 186.7 | 184.3 |
| Pears | 65.1 | 49.5 | 36.7 |
| Plums | 23.6 | 17.7 | 17.7 |
| Cherries | 12.1 | 6.4 | 6.2 |
| Total (including others) | 410.3 | 260.3 | 244.9 |

Contd....

2/ Ministry of Agriculture, Stockholm, Sweden

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Vegetables | | | |
| Potatoes | 1,477.0 | 1,545.0 | 1,460.0 |
| Carrots | 72.7 | 51.0 | 95.0 |
| Cabbages | 55.7 | 56.7 | 74.4 |
| Peas | 26.1 | 28.6 | 30.2 |
| Cauliflowers | 12.2 | 9.3 | 10.9 |
| Onions | 11.6 | 11.5 | 9.2 |
| Beans | 4.4 | 3.3 | 3.9 |
| Total (including others) | 1,698.9 | 1,737.4 | 1,710.7 |

A steep decline was registered in the production of fruits, from 410,300 tonnes to 244,900 tonnes during 1964-66 owing mainly to the frost and indifferent crop conditions obtaining in the whole of Europe including Sweden. This was a temporary phenomenon, as discussions in Sweden indicated that production in 1967 returned to the level of 1964. Apples with 184,300 tonnes of production had the lion's share of 75% in 1966 followed by pears, plums and cherries, their share in the total production having been very small. Small quantities of strawberries, raspberries and grapes are also grown in the country. Potatoes having accounted for 85% of the total production, constituted the major vegetable crop in the country. Others include carrots, cabbages, peas, cauliflowers and onions, carrots and cabbages being the more important produce

Production of fruits and vegetables in Sweden is undertaken in a very systematic manner, with most of the farms having shifted to the use of mechanical cultivation and harvesting. Total area under cultivation was reckoned at 16,502 hectares, comprising 12,772 hectares of vegetables and 3,730 hectares for fruits in 1967, as against 14,235 hectares in 1965. In addition to the arable land for vegetables, there are approximately 500 hectares of green houses and green benches in the country. Resulting from the usage of modern techniques of cultivation, the yields per hectare in Sweden are reaching their optimum as would be seen from the table given below:

Yields of Different Fresh Vegetables in Sweden 3/

| | Tonnes/Hectare |
|---|---|
| White Cabbages | 55.7 |
| Other Cabbages | 41.7 |
| Carrots | 39.8 |
| Red Beets | 35.0 |
| Onions Red | 19.2 |
| Onions Yellow | 19.0 |
| Cauliflowers | 13.7 |

The Survey revealed that the production of fresh produce appears to have reached its economic limit and accordingly hectarage of the large units is likely to decline so as to reach their optimum size. This happens to

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3/ Field Survey

be the case in respect of most of the arable land under modern cultivation. According to a Survey recently conducted by the Ministry of Agriculture, Sweden, only 63% of the present cultivated area constitutes profitable operations.

Exports. Despite a sizable production of fruits and vegetables in the country, Swedish horticultural produce does not enter export markets in any appreciable quantities. This is on account of the growing domestic consumption as well as the cultivation of limited varieties of fruits and vegetables in the country. Total exports averaged 17,400 tonnes over 1964-66, comprising 6,000 tonnes of fruits and 11,400 tonnes of vegetables, total f.o.b. value being $ 6.2 million. Peas, beans and strawberries are the only commodities which enter export markets in a substantial way, exports of other beans being small. Following table gives an idea of the exports of Sweden over 1964-66:

Exports of Fresh Fruits and Vegetables from Sweden 4/

Quantity: Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Vegetables | | | | | | |
| Peas | 9,964 | 3,821 | 9,471 | 3,216 | 7,323 | 2,574 |
| Spinach | 775 | 261 | 1,020 | 233 | 1,448 | 336 |
| Potatoes | 379 | 60 | 83 | 8 | 387 | 89 |

(Contd. next page)

4/ Foreign Trade Statistics of Sweden, Stockholm

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Tomatoes | 217 | 59 | 317 | 112 | 191 | 84 |
| Onion & Shallots | 86 | 14 | 80 | 11 | 53 | 6 |
| Total (incl. others) | 10,400 | 3,500 | 11,700 | 3,900 | 12,100 | 4,000 |
| **Fruits** | | | | | | |
| Beans | 2,368 | 1,500 | - | - | 2,536 | 1,021 |
| Strawberries and Red Canberries | 2,275 | 1,459 | - | - | 2,528 | 1,019 |
| Oranges, mandarins and clementines | 1,327 | 303 | - | - | 1,154 | 227 |
| Grapes | 1,149 | 436 | 294 | 114 | 675 | 254 |
| Pears & quinces | 980 | 286 | 116 | 28 | 948 | 246 |
| Apples | 766 | 208 | 1,207 | 263 | 948 | 246 |
| Total (incl. others) | 5,700 | 1,900 | 5,300 | 2,200 | 7,200 | 3,200 |

Peas having constituted the biggest item in horticultural export trade of Sweden are mainly directed to UK and a large number of other countries including West Germany, Austria and Italy. While strawberries are principally bought by West Germany, Norway and Denmark, apples go to Norway, Denmark, Finland and West Germany. It would thus appear that Swedish exports are principally directed to the neighbouring West European countries, exports to other areas being negligible.

Imports. As indicated earlier, Sweden's imports of fresh produce are substantial, having averaged 450,000 tonnes, comprising 296,000 tonnes of fruits and 154,000 tonnes of vegetables. While imports of fresh fruits have been registering a rapid rise, from 274,400 tonnes in 1964 to 317,600 tonnes in 1966, vegetables evinced an increase from 130,400 tonnes in 1964 to 184,900 tonnes in 1966. This would be evident from the table given below indicating the imports of major fruits and vegetables coming into Sweden:

Imports of Fresh Fruits and Vegetables 5/

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Vegetables** | | | | | | |
| Tomatoes | 27.0 | 9.8 | 31.0 | 10.6 | 28.0 | 9.8 |
| Onions | 15.0 | 1.7 | 17.0 | 2.5 | 16.0 | 1.9 |
| Potatoes | 14.0 | 1.4 | 5.0 | 0.7 | 20.0 | 2.1 |
| Cabbages | 5.0 | 0.6 | 6.0 | 0.4 | 8.0 | 0.8 |
| Lettuce | 3.0 | 1.4 | 4.0 | 1.9 | 3.0 | 1.7 |
| Cauliflowers | 2.0 | 1.5 | 6.0 | 1.5 | 5.0 | 1.5 |
| Total (incl. others) | 130.4 | 27.8 | 146.7 | 27.4 | 184.9 | 32.8 |

Contd....

5/ Central Bureau of Statistics, Stockholm

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Fruits** | | | | | | |
| Oranges | 115.0 | 23.0 | 109.0 | 22.2 | 116.0 | 23.7 |
| Bananas | 53.0 | 10.8 | 66.0 | 12.2 | 57.0 | 10.8 |
| Apples | 46.0 | 12.0 | 55.0 | 14.1 | 56.0 | 15.1 |
| Grapes | 27.0 | 8.1 | 23.0 | 7.7 | 27.0 | 8.1 |
| Pears | 18.0 | 5.0 | 20.0 | 5.4 | 21.0 | 5.7 |
| Peaches | 8.0 | 2.8 | 7.0 | 2.9 | 9.0 | 3.1 |
| Lemons | 6.0 | 1.4 | 6.0 | 1.5 | 6.0 | 1.4 |
| Cherries | 2.0 | 1.0 | 2.0 | 1.4 | 2.0 | 1.4 |
| Total (incldg. others) | 274.4 | 72.3 | 296.1 | 80.8 | 317.6 | 86.9 |

With the exception of tomatoes, potatoes and onions, imports of other vegetables are not considerable, tomatoes having represented about 15% of the total vegetable imports in 1966. Among fruits, oranges and tangerines lead the market with 37% of the total imports followed by bananas and apples with 18% each. Other items of importance include grapes, pears, lemons, peaches and cherries.

While Spain, Israel and Morocco lead the market in respect of oranges, banana supplies are dominated by Colombia, Ecuador and Honduras. Apples and pears mainly come from Italy, USA, Argentina and Australia. Following table gives the respective shares held by major

suppliers for fresh fruits during 1966:

Major Suppliers of Fresh Fruits to Swedish Market in 1966 (Percentage to total imports)[6/]

| | Bananas | Oranges | Grapes | Apples | Pears |
|---|---|---|---|---|---|
| Colombia | 51.6 | - | - | - | - |
| Ecuador | 20.2 | - | - | - | - |
| Honduras | 12.7 | - | - | - | - |
| Panama | 8.4 | - | - | - | - |
| Spain | - | 42.9 | 34.3 | - | - |
| Israel | - | 30.2 | - | - | - |
| Morocco | - | 6.7 | - | - | - |
| Italy | - | - | 38.9 | 9.4 | 21.4 |
| USA | - | - | - | 19.2 | 24.4 |
| Argentina | - | - | - | 27.5 | 12.1 |
| Australia | - | - | - | 18.9 | 18.1 |
| South Africa | - | - | - | - | 13.7 |
| Others | 7.1 | 20.2 | 26.8 | 25.0 | 10.3 |

Major suppliers of vegetables include Poland, Italy, Hungary, Egypt and UAR for onions, Netherlands and Spain for tomatoes, and Hungary, Netherlands and Spain for cucumbers and cabbages as would be evident from the table given below:

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6/ Central Bureau of Statistics, Stockholm

Major Suppliers of Fresh Vegetables to Swedish Market in 1966 (Percentage to total imports) 7/

| | Cabbages | Potatoes | Onions | Tomatoes | Cucumbers |
|---|---|---|---|---|---|
| Netherlands | 71.4 | - | - | 62.4 | 70.4 |
| Hungary | 14.3 | 9.0 | 19.5 | - | 8.3 |
| Poland | - | - | 21.4 | - | - |
| Italy | - | - | 18.0 | - | - |
| Egypt | - | - | 17.5 | - | - |
| Spain | - | - | - | 33.4 | 9.4 |
| Norway | - | 28.0 | - | - | - |
| Denmark | - | 31.0 | - | - | - |
| Others | 14.3 | 32.0 | 23.6 | 4.2 | 11.9 |

Sales Promotion

Swedes are very discriminating about the quality of the fresh produce. Brand publicity has thus come to be a predominating feature of the market, major suppliers spending heavily on this effort. It was understood, for instance, that the Citrus Marketing Board of Israel and the United Fruit Company undertake intensive promotional campaigns in the country. Point-of-sale material is distributed extensively among retailers and green-grocers. Besides, free offers of fruits and prize competitions for retailers are organised regularly. Special weekly sales offering concessional rates are also undertaken on a

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7/ Central Bureau of Statistics, Stockholm

monthly basis for selected fruits intended to be heavily promoted during that period. Discussions indicated that sales promotion has come to play a very important role in the sale of fresh produce in the country in view of the well established positions of Israel, USA, Australia and South Africa in the market. For new entrants adequate sales promotion budgets are a must.

Grading and Packing

Fruits and vegetables imported into Sweden have to comply with O ECD grade standards and packaging requirements. Normally all the fruits presently imported into Sweden are excellently packed with necessary protection for avoiding any damage to the fruit during transit. Swede traders have laid down very specific standards in respect of packaging and grading of the fruits.

Import Policy and Regulations

Imports are subject to a phased licensing system whereby liberal licences are issued for the import of fresh produce except that duties vary from one period to another depending upon the local availability of the particular item during that season. There are no duties on the import of oranges, mandarins, clementines and grapefruits. Apples, which are grown in considerable quantities in the country, are subject to a duty of Swedish Kroner 25 ($ 4.80) per 100 kg during July-February and exempted during March-June, being the off-season for Swedish produce. During off-seasons most of the fruits and vegetables are exempted from any duty. Details of the tariff schedules appear at Volume V, Chapter 7(h) of the Report.

## B. Processed Fruits and Vegetables

### Market Size

Being one of the most prosperous countries in Europe, consumption of convenience foods including processed fruits and vegetables is very high in Sweden; it has risen from 221,700 tonnes in 1964 to 244,300 tonnes in 1966. Following table presents the average consumption of processed fruits and vegetables over 1964-66:

Apparent Consumption of Processed Fruits and Vegetables 7/

( 1964-66 - Average )

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 75.0 | - | 102.0 | - |
| Imports | 40.0 | 14.0 | 11.0 | 4.6 |
| Exports | 1.5 | 0.9 | 0.7 | 0.3 |
| Apparent Consumption | 113.5 | - | 112.3 | - |
| Per Capita Consumption (kg) | 19.0 | - | 18.5 | - |

It would appear from the above that consumption of processed items averaged 225,800 tonnes during 1964-66, having shown a per capita consumption of 37.5 kg. The Swedish market presents a very high growth potential in the whole of Europe. Despite considerable production at home, imports of fruits and vegetables have been steadily growing, the rise over the period being 20%. Local production accounted for 65% of the total consumption of fruit

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7/ Central Bureau of Statistics, Stockholm

preparations and 91% of vegetables. This clearly brings out the growing capacity of the home industry to cover the domestic demand.

Production. The Swedish horticultural processing industry is the largest in the whole of Scandinavia catering to about 78% of the aggregate consumption of processed fruits and vegetables during 1964-66. Total production in 1966 amounted to 186,000 tonnes comprising 79,000 tonnes of processed fruits and 107,000 tonnes of processed vegetables.

The domestic industry is fairly well organised and on account of the adequate availability of fresh produce, has recently diversified its production-base significantly There are about 10 large scale units, Finduas AB being the premier operation, specialising in the manufacture of processed vegetables with high stakes in export markets. Domestic products include jams, marmalades and fruit puree (mainly apples), fruit pulps, fruit juices, vegetables preserved in vinegar (mainly cucumbers and red beets), peas, mushrooms, asparagus, potatoes, carrots, beans and pickled vegetables (including peas, carrots, beans, spinach) and ready-to-serve soups. Pickled vegetables represented the largest volume item accounting for over 50% of the total production of processed vegetables in 1965. Among fruit preparations, jams, marmalades and fruit puree covered 84% of the overall production of processed fruits. Detailed statistics on the Swedish production of processed fruits and vegetables appear at Volume IV, Table B-1.9, of the Report.

Exports. Exports of processed fruits and vegetables were negligible in the recent past, having averaged 2,200 tonnes during 1964-66. While fruit preparations were of the order of 1,600 tonnes in 1966, processed vegetables amounted to 1,100 tonnes indicating the insignificance of exports of the processed sector. Exports, however, rose from 2,100 tonnes in 1964 to 2,700 tonnes in 1966. Swedish canned vegetables are reported to be gaining increasing popularity abroad and trade believes that exports would pick up more rapidly in the near future. Exports of vegetables grew from a mere 200 tonnes in 1962 to 1,100 tonnes in 1966 thus reflecting a five-fold rise over the period. Swedish products are mostly directed to neighbouring European countries.

Imports. While detailed statistics on the imports of processed fruits are given at Volume IV, Table B-2.9, of the Report, following table presents the imports of major fruit items during 1964-66:

Imports of Major Fruit Preparations 8/

(Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Juices | 10,715 | 11,573 | 14,213 |
| Sweetened | 9,460 | 9,690 | 11,765 |
| Unsweetened | 1,255 | 1,913 | 2,448 |

(Contd. next page)

8/ Foreign Trade Statistics of Sweden

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Canned Fruits | 25,907 | 28,546 | 29,064 |
| Peaches | 9,468 | 8,373 | 8,080 |
| Fruit Cocktails | 3,273 | 4,070 | 3,985 |
| Pineapples | 2,942 | 3,394 | 3,993 |
| Pears | 2,083 | 2,646 | 2,583 |
| Apricots | 1,554 | 2,025 | 2,315 |
| Citrus | 1,180 | 1,488 | 1,672 |
| Total (incldg. others) | 36,622 | 40,119 | 43,277 |

Canned Fruits. Imports of canned fruits have been upward by about 11% over 1964-66. Peaches constitute the most important item with a share of 28% in 1966 as against 37% in 1964 reflecting a decline in its popularity among Swedes. Pineapples, which rank second among the imported processed fruits, appear to have gained greater popularity over the period, their share having increased from 13% in 1964 to 16% in 1966. Likewise pears, fruit cocktails and apricots rose in importance in the Swedish market. Citrus segments imports, which were stepped up by about 50% during 1960-63 rose only by 20% over 1964-66.

Peaches. Swedish peach market continues to be dominated by USA, though her share declined from 91% in 1964 to 79% in 1966. Australia, on the other hand, improved her position considerably annexing a 17% share in 1966 as against 4% in 1964, whereas the fortunes of other suppliers including Spain, Greece and South Africa were badly affected during the period. Australia has been gradually gaining ground in the European market for processed items mainly at the cost of USA, on account of relatively lower prices and excellent distribution system coupled with aggressive promotional support.

Pineapples. Pineapples had suffered a serious setback during fifties, imports having declined from 7,000 tonnes in 1957 to 3,782 tonnes in 1963. Demand was rather cyclic in the past, but the present trend is upward indicating growing pineapple consumption in Sweden. USA, which supplied 56% of the total Swedish requirements in 1964, has gone down in importance in the recent past, its share having declined to 38% in 1966. Philippines, on the other hand, has been steadily coming up as a contender for market leadership; its share rose from 29% in 1964 to 33% in 1966. Taiwan improved her stakes from 2% in 1964 to 15% in 1966. Mainland China too has entered the market but its efforts have met with little success due to its products being inferior and lacking consistency. Swedish market for pineapple products offers adequate scope for entry by new suppliers who can offer an acceptable product at reasonable prices.

Fruit Cocktails. Imports of fruit cocktails have been showing a steady rise and are slated to grow more in the coming years. The market remains dominated by American brands, though their share declined from 97% in 1964 to 69% in 1966. The gap has been filled by Australian fruit cocktails to the extent of 25% of the market requirements in 1966 as against one tonne in 1964. Lower prices supported by promotion have been at the back of Australia's remarkable success in the Swedish market for fruit cocktails.

Citrus Segments. Japan is the market leader in respect of mandarin orange segments with 75% share in 1966 followed by Spain and China (Mainland). China which reportedly

entered the market only in 1965, annexed over 8% share of the market in 1966, whereas Taiwan (which had 12% share of the market in 1964) was completely eased out in 1966, as its segments are slightly big in size and less regular; Swedes reportedly prefer small size segments of regular sizes. Mandarin orange sections are imported in 11 oz cans for house-hold consumers and 30 oz cans for institutional buyers. Japanese segments are well peeled wholes in light syrup.

Pears. Pear halves constitute another popular item gaining increasing acceptability among Swedes, imports having risen from 2,083 tonnes in 1964 to 2,583 tonnes in 1966. Principal suppliers include Australia, Netherlands, Italy, USA and China (Mainland). Netherlands, which dominated the market till 1964, appears to be losing its hold ver the market, its share having fallen from 57% in 1964 to 18% in 1966. While Australia has come to be the market leader (from 2% to 32%), the stakes of China (Mainland) (from 8% to 15%), Japan (3% to 20%) and USA (from 2% to 5%) improved considerably during the period under review.

Apricots. Apricots originate from Spain and USA, the former having almost doubled its supplies to the Swedish market during the last three years.

Jams, etc. In respect of imported jams, marmalades and jellies, the Swedish market does not offer much scope on account of its substantial domestic production. Total production of jams in 1965 was 28,747 tonnes comprising 3,853 tonnes of apple jams, 5,101 tonnes of citrus jams and 17,793 tonnes of berries jams. It has been reported that Swedish jams are normally less sweet than imported

jams, a factor to be noted by intending exporters.

Fruit Juices. In addition to the indigenous production of single strength fruit juices in Sweden, 14,213 tonnes of various types of fruit juices were imported into Sweden during 1966 as against 10,713 tonnes in 1964. Imports largely comprised unsweetened citrus juice, sweetened citrus juice (mostly in retail packs), pineapple, tomato and temperate fruit juices. Pineapple juice, however, is not a very popular drink in Sweden. Citrus juices, mainly of concentrated varieties, are the principal imported items, having accounted for 63% of the total in 1966. On the other hand, single strength citrus juices have been declining in popularity, their supplies having fallen from 133 tonnes in 1964 to 103 tonnes in 1966. Other varieties of single strength juices, however, made significant improvement in their position between 1964-66 when their imports rose from 2,565 tonnes to 3,841 tonnes.

The Survey revealed that 60% of the total imports of fruit juices are in concentrated form for industrial users as well as house-hold consumers, remaining 40% making up for single strength juices. Of the total imports of citrus juices, 75% reportedly account for orange juice, 15% for grapefruit juices and 10% for blended orange juice. While the industry prefers the juices to be of 65° brix, the house-hold users consume 45° brix. Concentrated juices are mostly imported during the period January-May.

Major suppliers of citrus juices include Israel, USA and Spain, Israel having catered to 49% and USA 23% in 1966. In respect of other juices, West Germany is

the market leader with 23% share in 1966 followed by Denmark, France and Poland.

Discussions with the industrial users revealed that unsweetened juices are mostly imported in cans of 3 kg or more; concentrated juices required by the house-hold users are mostly bought in 6 oz cans. The industrial users prefer to buy concentrated juice in steel barrels of 55 US gallons (250 kg) with polythene coatings. Countries like Spain, being nearer to Sweden, also export concentrated juice in wooden barrels containing 250 kg.

Canned Vegetables. Sprouts, mushrooms, tomato pulp, asparagus and peas constitute the major imported vegetables. Between 1964-66 imports of the major canned vegetables were as follows:

Imports of Processed Vegetables 9/

(Tonnes)

| | 1964 | 1966 |
|---|---|---|
| Sprouts | 2,028 | 2,190 |
| Mushrooms | 1,244 | 1,611 |
| Tomato pulp and puree | 943 | 2,503 |
| Asparagus | 739 | - |
| Olives | 301 | 522 |
| Mixed Vegetables | 3,012 | 5,571 |
| Total (incldg. others) | 10,029 | 14,130 |

9/ Central Bureau of Statistics, Stockholm

Mixed vegetables are the most important item imported presently followed by tomato product, sprouts, mushrooms and asparagus. With the sole exception of asparagus, imports of most of the processed vegetables rose considerably during 1964-66, tomato pulp and puree having registered the highest rate of growth, from 943 tonnes in 1964 to 2,503 tonnes in 1966.

The Swedish market for sprouts has been continuously monopolised by USA, other major suppliers being Japan, Spain and Denmark.

Imports of tomato pulp and tomato puree, being increasingly used by the local processors for the manufacture of tomato sauce, beans in tomato sauce, fish canning, etc, rose from 943 tonnes in 1964 to 2,503 tonnes in 1966. Domestic production of beans in tomato sauce has been going up steadily during the last five years resulting in increased demand for tomato puree and pulp by the Swedish processors. The tomato pulp and puree market of Sweden is widely spread among various exporting countries, Hungary being the major supplier, followed by Bulgaria. The following table indicates the average CIF prices from major sources:

Average CIF Prices of Tomato Products[10/]

| | Per Tonne/ |
|---|---|
| Hungary | 1221.48 |
| Bulgaria | 1143.34 |

10/ Field Survey

Imports of other vegetables including beans and tropical vegetables rose from 3,012 tonnes to 5,571 tonnes in 1966, beans having become a very important product in the recent past in the Swedish market. Brown beans are reported to be a favourite item among Swedish consumers. Major suppliers of these include Spain, Austria, Bulgaria Canada and Mainland China. Special mention needs to be made of the exotic vegetables including bamboo shoots, peeled water chestnuts and meshed aubergines currently imported by a number of corporate chains for sale in their retail outlets. Though the imports of these items are not considerable at present, a trend towards their growing consumption is discernible. There are a large number of Chinese restaurants operating in Stockholm which is at the back of the rising imports of these items from Mainland China.

Brands

Discussions with a leading import house handling canned fruits and vegetables indicated that Del Monte is the market leader in respect of canned peaches, pineapple slices and fruit cocktails. According to a market survey undertaken recently by an import house, Del Monte's share of the total canned fruit market comprising mainly yellow clingstone peaches, pineapple slices, fruit cocktails, etc. was placed at 47%. The shares held by other brands are presented below:

Market Shares by Major Brands 11/

| | |
|---|---|
| Australian Brands (mainly Ky and Artmona) | 10% |
| Monarch (US Brand) | 7% |
| Heaven Temple (China Brand) | 4% |

(Contd. next page)

11/ Field Survey

| | |
|---|---|
| Dole (US Brand) | 3% |
| Libby's (US Brand) | 2% |
| SW (US Brand) | 2% |
| Others | 25% |

The Survey further indicated that Del Monte accounts for 49% of the peaches market, 65% of the pineapple market and 52% of the fruit cocktail market. Libby's was the leading brand in Sweden till a few years back but on account of efficient distribution system through their importers coupled with adequate promotional support, Del Monte has come to be the market leader for processed fruit items. The import house handling Del Monte products is very well organised having at its command widespread distribution outlets manned by four different divisions and 20 Del Monte executives. The Del Monte salesmen, employed by the importing company, work in various outlets with a view to promoting, publicising and booking orders for their products.

A fairly substantial promotion budget is allocated to the local importers by the Del Monte Central Office for participation in weekly advertising campaigns of corporate chains and distribution of display materials to retail outlets. Del Monte also organises seasonal promotional campaigns for stepping up sales of its products, which according to the trade, have met with adequate success. The Survey revealed that Del Monte spent $ 38,500 on efforts aimed at promotion and publicity during 1967.

Channels of Distribution

Being highly quality conscious, Swedes possess definite brand loyalties. Consequently companies like Del Monte and Libby's incur heavy promotional expenditure

for the maintenance of their brand image in the retail market for canned fruits and vegetables. Even local packers like Cal Pack and Findus spend large sums of money on national advertising and promotion. Continuous campaigns through Swedish agents as well as special price offers are carried out for the promotion of the canned products. The situation as existing presently in Sweden makes promotional support a necessary prerequisite for the introduction of new products. Some of the corporate chains have their own labels and as such enforce strict quality control measures for checking the quality aspects of the products sold under their brands. It may, however, be indicated that on the whole, overseas packer's labels still account for the major proportion of the sales of canned fruits and vegetables in Sweden, though increasing interest is being shown in selling goods under distributor's labels.

The Swedish market, like all other Scandinavian markets, has undergone significant changes since the sixties. The process of amalgamation and concentration among retail stores is very much in evidence, having resulted in bulk operations. According to the Census in 1950, there were 32,000 stores with an annual turnover of one billion dollars; the number of stores has since reduced to 24,000 in 1961 and 18,000 in 1967 with much larger retail turnover. Trade discussions further indicated that most of the retail stores have an annual turnover of $ 200,000 with self-service facilities. The growth of self-service stores has been fantastic in Sweden, their number having risen

from 2 in 1947 to 8,360 in 1965. A few of these stores are super markets and it is estimated that self-service stores accounted for 52% of the total turnover of food retailing in 1965. The Industrial Research Institute, Stockholm, for instance, has projected that 80% of the food retail turnover would be handled through self-service stores by 1970.

There is a clear trend in Sweden towards fewer but larger stores and the establishment of big corporate chains has created pockets of purchasing power. The Swedish food market in 1965 was composed of the following retail groups:

| Organisation | % Share of the Market |
|---|---|
| KF (Kooperative Forbundent) | 30% |
| ICA (Inkopscentralernas AB) | 30% |
| UNIL (United Nordic Importers Ltd) | 27% |
| Ahlem and Holm (Tempo Stores) | 5% |
| Turitz & Co (EPA) | 5% |
| Others | 3% |

It would thus be seen from the above that food market in Sweden is getting to be highly concentrated with large scale operations gaining increasing importance. A strong concentration of buying function is the major feature of today's retail trade, enabling foreign exporters to cover a considerable chunk of the market through one or two of these chains. ICA with 7,000 retail outlets, for example, is reported to be the largest voluntary chain in Sweden, presently accounting for 30% of the total food market in Sweden.

Likewise, KF also has stores located all over the country. All these organisations have centralised buying departments catering to the requirements of their member stores. While KF handles all the purchases of its member consumer cooperatives, ICA performs similar functions for its associates. UNIL A/B buys for two of its chains called VIVO and SPAR.

This peculiar marketing characteristic of Sweden which though is in tune with current trends all over Europe, is probably most deep-rooted in Sweden as compared to other European countries. This characteristic has to be kept constantly in view while exploring processed fruit and vegetable market in Sweden. Resulting from the concentration of buying power among a few selected corporate chains, the buying organisations are now in a position to dictate terms to the prospective supplies of food items.

Discussions held with some of leading chains revealed that it would be necessary for Indian manufacturers to incur considerable expenditure on promotion and publicity through selected outlets. The promotion campaigns and demonstrations, which are regularly organised by these chains, are normally financed by the exporting companies. Every week, the Swedish newspapers display advertisements offering reduced prices for certain selected food items for giving them special promotion. Price concessions offered during these weeks are normally shared between the chain stores and the supplying countries, major share being borne by the exporters.

NORWAY
SWEDEN
SKAGERAAK
HJÖRRING
TISTED
AALBORG
KATTEGAT
NORTH SEA
RANDERS
HOLSTEBRO
VIBORG
GRENAA
RINGKOBING
ARHUS
HELSINGOR
VEJLE
ESBJERG
COPENHAGEN
HOLBACK
KOLDING
ODENSE
HADERLEV
NYBORG
KORSÖR
AABENRAA
NAESTVED
SVENDBORG
NAKSKOV
NYKOBING
GERMANY
BALTIC SEA

## 5.10 DENMARK

### Background

With a population of 4.8 million, Denmark has one of the highest per capita incomes in the world amounting to $ 2,320 per annum. Discretionary spending power of the Danes is fairly strong and expenditure on food products, particularly on fruit and vegetable items, very high. The average value of imports (1964-66) of fresh and processed fruits and vegetables, for instance, works out to $ 11.4 per capita which clearly indicates the magnitude of the Danish demand for these items. Imports, however, comprise mainly fruit and fruit preparations. Denmark is a net exporter of fresh and processed vegetables.

### A. Fresh Fruits and Vegetables

### Market Size

The apparent consumption of fresh fruits and vegetables in Denmark between 1964 and 1966 was placed at 1.13 million tonnes per annum comprising 222,000 tonnes of fruits and 919,000 tonnes of vegetables. This provides a per capita consumption rate of 44 kg of fruit and 184 kg of vegetables. Over 86% of the Danish demand for fresh fruits and vegetables amounting to 988,000 tonnes was met by domestic production and 153,000 tonnes valued at $ 34 million were imported.

## Apparent Consumption of Fresh Fruits and Vegetables in Denmark 1/

Quantity: Thousand Tonnes
Value: Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 109 | - | 1,213 | - |
| Imports | 125 | 27 | 28 | 7 |
| Exports | 12 | 2 | 322 | 9.5 |
| Apparent Consumption | 222 | - | 919 | - |
| Per Capita Consumption (kg) | 44 | - | 184 | - |

Production. Average annual output of edible horticultural produce in Denmark was around 1.3 million tonnes during 1964-66 period, with fruit crops accounting for only 9% of the total production. As will be evident from the table given below, apples, pears, plums and strawberries were the main Danish fruit crops while potatoes, cabbages and carrots were of significance among fresh vegetables output.

(Next page)

1/ OECD Commodity Trade Statistics, Paris

Production of Fresh Fruits and Vegetables in Denmark 2/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| **Fresh Fruits** | | | |
| Apples | 95 | 89 | 77 |
| Strawberries | 9 | 8 | 8 |
| Pears | 8 | 7 | 6 |
| Plums | 3 | 2 | 2 |
| Total (including others) | 120 | 111 | 97 |
| **Fresh Vegetables** | | | |
| Potatoes | 1,213 | 937 | 930 |
| Cabbages | 54 | 33 | 39 |
| Carrots | 31 | 32 | 48 |
| Tomatoes | 18 | 19 | 18 |
| Pears | 13 | 10 | 10 |
| Total (including others) | 1,417 | 1,100 | 1,125 |
| Total | 1,537 | 1,211 | 1,222 |

Imports. A major portion of Danish vegetable requirements are generally met by domestic production and during 1964-66 period imported produce accounted only for about 2% of the total demand. On the contrary, more than 50%

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2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-1.10 of the Report

of the Denmark's fruit supplies originated in the overseas countries, during the corresponding period. Total imports of fruits and vegetables into Denmark rose from 118,000 tonnes in 1964 to 135,000 tonnes in 1966.

Imports of Fresh Fruits and Vegetables into Denmark 3/

Quantity: Thousand Tonnes
Value: Million Dollars

| | 1963 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| **Fresh Fruits** | | | | |
| Oranges and Tangerines | 45 | 7 | 45 | 7 |
| Bananas | 33 | 5 | 33 | 5 |
| Grapes | 10 | 3 | 10 | 3 |
| Apples | 10 | 2 | 10 | 3 |
| Lemons and Grapefruits | 10 | 2 | 11 | 2 |
| Total (including others) | 120 | 26 | 136 | 30 |
| **Fresh Vegetables** | | | | |
| Potatoes | 6 | 1 | 6 | 1 |
| Tomatoes | 4 | 1 | 4 | 1 |
| Total (including others) | 24 | 6 | 37 | 8 |
| Total | 144 | 32 | 173 | 38 |

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-2.10 of the Report

During 1966, imports of oranges & tangerines and bananas were of the order of 45,000 tonnes and 33,000 tonnes respectively, which taken together, accounted for over 55% of the total Danish fresh fruit imports. Israel and Spain were the leading citrus fruit suppliers to this market, with a share of 20,000 tonnes each. Spain and Ecuador were the principal banana exporters to Denmark.

Apples, next in importance in fresh fruit imports, mainly originated in the countries of the Southern hemisphere. Australia was the leading supplier representing about 50% of the total apple imports. Sizable quantities were also imported from Argentina, South Africa and USA.

Of the fresh vegetable imports, only potatoes and tomatoes are of some importance. Italy and Spain export these vegetables in limited quantities to the Danish market, during the off-season.

Exports. Danish fresh fruit and vegetable exports mainly comprise apples, potatoes and leafy vegetables like cauliflowers, cabbages and salads. Major proportion of the Danish export trade is directed towards the other Scandanavian countries, particularly Sweden. Outside Scandinavia, West Germany is the important customer for Danish potatoes and fresh vegetables. During 1966, fresh produce exports were valued at $ 11 million.

Exports of Fresh Fruits and and Vegetables from Denmark 4/

Quantity: Thousand Tonnes
Value: Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fresh Fruits | 13.1 | 2.1 | 11.7 | 2.0 | 12.3 | 2.6 |
| Fresh Vegetables | 560.2 | 12.0 | 202.0 | 8.4 | 203.7 | 8.3 |
| (of which potatoes) | (36) | (2) | (78) | (4) | (53) | (4) |
| Total | 573.3 | 14.1 | 213.7 | 10.4 | 216.0 | 10.9 |

Import Policy and Regulations

Imports of fruits and vegetables into Denmark are subject to a phased licensing system involving unrestricted issue of licenses for the import of horticultural products except during the Danish season. Imports effected during the off-season face considerably lower tariff rates as compared to seasonal levies.

Channels of Distribution

Importers-wholesalers numbering about 200 handle bulk of the fruit and vegetable import trade in Denmark. Importers margins range from 5% to 8% depending upon the type of the produce. A list of major importers of fresh fruits and vegetables in Denmark is furnished in Volume VI.

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4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-3.10

Local horticultural produce is mainly marketed and distributed by 23 leading Horticultural Marketing Associations spread over the main urban centres in the country. Their total turnover during 1966 was estimated at $ 37 million.

Grading and Packing

Fruits and vegetables imported into Denmark should comply with OECD grade standards and packaging requirements. Besides, all consignments should carry the disease-free certificates issued by the plant protection authorities of the exporting countries.

Sales Promotion

Sales promotion constitutes one of the most important features of food trading in Denmark. Major supplying countries like Israel, USA, South Africa and Australia having high stakes in the Danish market for fresh fruits and vegetables, incur large amounts of money on efforts aimed at sales promotion and publicity. Trade discussions held in Denmark indicated that the Citrus Marketing Board of Israel spends on an average 5 to 7% of its total turnover on this effort. For instance, it was reported that the Board's total expenditure on publicity of oranges during 1967 was around $ 53,000. Spain, on the other hand, spends approximately $ 6,700 a year for popularising its commodities, major among them being oranges and onions. At the time of introducing Chiquita bananas in Denmark in 1967, the United Fruit Company's expenditure on sales promotion was reckoned at $ 67,000.

In addition to the publicity undertaken by the exporting countries, the Fruit Importers Association of Denmark has formed an organisation called 'Frugt Information' with the objective of popularising the imported fruits and vegetables coming into the market. This organisation runs promotional campaigns for imported items through different media including newspaper, cinemas and point-of-sale demonstrations. Special campaigns for promoting selected fruits in major areas, super markets and retail stores are also undertaken periodically. For meeting the expenditure of 'Frugt Information' each member has to pay Danish Kroner 3 per Danish Kroner 1,000 ($ 140) of cif value of the imports effected by him, the annual contribution being around Danish Kroners 250,000 ($ 33,300). Concesseional grants from foreign suppliers particularly Italy, South Africa, Australia and Spain are also received by this organisation for arranging special campaigns for their fruits, total amount received on this account being Danish Kroner 150,000 ($ 20,000) in 1967. During the last year, special campaigns were organised for apples and pears of Australia, grapes of South Africa, oranges of Israel and citrus fruit of Spain.

( Contd. )

## B. Processed Fruits and Vegetables

### Market Size

Denmark constitutes a small but growing market for processed fruits and vegetables, as would be indicated from the table given below:

Apparent Consumption of Processed Fruits and Vegetables in Denmark (1964-66 average) 5/

Quantity: Thousand Tonnes
Value: Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 34 | - | 31 | - |
| Imports | 29.1 | 9.25 | 34.8 | 9.40 |
| Exports | 9.2 | 3.38 | 4 | 1.60 |
| Apparent Consumption | 53.9 | - | 61.8 | - |
| Per Capita Consumption (kg) | 11.2 | - | 12.8 | - |

It would be inferred from the above that of the total consumption of 115,700 tonnes comprising 53,900 tonnes of fruits and 61,800 tonnes of vegetables, domestic production met approximately 45%, the remaining having been catered though imported supplies. Consumption of these items has risen from 101,700 tonnes in 1964 to 134,700 tonnes in 1966 thus indicating annual

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5/ Central Bureau of Statistics, Copenhagen

growth rate of 33% over the period. Danes, though continue to consume large quantities of fresh produce, are gradually shifting to the use of processed items in view of rising personal incomes and living standards. According to the trade, Scandinavia in general and Denmark in particular constitutes a growth market for processed foodstuffs.

Production. The Danish processing industry, though of a small size, has witnessed remarkable progress during the last few years. Domestic production of preserved fruits mainly comprising pears, berries, apples, jams, fruit juices and pulps amounted to 39,000 tonnes in 1966 as against 30,000 tonnes in 1964. It is in the manufacture of fruit juices that notable advance has taken place, production having more than trebled from 1,100 tonnes in 1964 to 3,600 tonnes in 1966.

Processed vegetables constitute a very significant segment of the Danish industry in view of the large scale availability of different types of temperate vegetables; output of processed vegetables has increased from 28,000 tonnes in 1964 to 35,000 tonnes in 1966. Major vegetables packed locally include red cabbage, green peas, carrots, cucumbers, asparagus, beans, catsup and mushrooms.

The industry is well organised having most of the units localised in the growing areas like Odense and outskirts of Copenhagen. Majority of the units

have automatic operations and like other European countries, enter into contracts with the growers for the regular supply of fruits and vegetables. Facilities like availability of sugar and cans at international rates and production credits are provided by the Government.

Exports. Small quantities of processed fruits, vegetables and juices, are exported to various destinations in West Asia and Europe, total exports being 14,000 tonnes in 1966. Processed fruits mainly preserved in syrup, are the major items in export trade having accounted for 60% of the total fruit preparation exports of 9,600 tonnes in 1966. Among others, fruit juices, and preserved vegetables like mushrooms, peas and cucumbers are important. Exports are mainly directed to Sweden, Finland, Norway and West Germany. Trade discussions revealed that with the growing acceptability of Danish juices, pears, peas and mixed vegetables, exports are likely to expand rapidly in the next few years.

Imports. While detailed import statistics are given at Volume IV, Table B-2.10, following table presents the imports of major processed fruits during 1963-65:

(Next page)

Imports of Major Processed Fruits into Denmark 6/

(Tonnes)

| | 1963 | 1965 | 1966 |
|---|---|---|---|
| Peaches | 5,459.9 | 5,519.4 | 6,259.7 |
| Pineapples | 4,336.5 | 4,613.3 | 5,032.3 |
| Pears | 246.6 | 577.4 | 777.3 |
| Apricots | 485.6 | 1,197.9 | 1,072.8 |
| Citrus fruit | 681.1 | 766.5 | 701.1 |
| Fruit cocktail | 464.8 | 844.4 | 483.6 |
| Total | 11,671.5 | 13,518.9 | 14,326.8 |

It would be seen that imports of these items registered a rise of 36% over 1963-65, imports having increased from 11,671 tonnes to 14,327 tonnes. Canned peaches constitute the most important item accounting for over 40% of the total followed by pineapples (33%). Among others, apricots, pears, fruit cocktails and citrus segments are important.

Peaches. USA dominates the Danish peach market; its share, however, has been declining over the years, from 79% in 1963 to 54% in 1966. This is due to the relatively high prices of American products and the growing participation of American companies in the processing industry of South Africa, whereby more and

6/ Central Bureau of Statistics, Copenhagen

imports are taking place through South African subsidiaries. Australian peaches too have been coming up in the market, imports having shot up from 3 tonnes in 1963 to 1,797 tonnes in 1966, and that of South Africa from 450 tonnes in 1963 to 733 tonnes in 1966. Though American peaches are reputed to be superior, a large number of Australian brands including Artmona and Kyabram have been established as trade brands in the Danish market owing to relatively lower prices and adequate promotional effort of Australian companies.

Pineapples. Pineapples, which rank second in the Danish market are principally imported from USA, Malaysia and Mainland China. The market for canned pineapples has been growing steadily, having risen from 2,546 tonnes in 1959 to 5,032 tonnes in 1966. In the opinion of the trade, pineapples have the highest retail potential in Denmark. While supplies from South Africa have been declining over the period, Taiwan, USA, Mainland China and Malaysia have since improved their positions. Taiwan, particularly has made considerably improvement in her supplies to the Danish market, her share having amounted to 22% in 1966 as against 20% in 1963. Supplies from China have also risen sharply from 100 tonnes in 1963 to 931 tonnes in 1966. Price has come to play a crucial role in the sale of pineapples, the market being gradually taken over by low-priced suppliers like China and Taiwan.

Two distinct varieties of processed pineapples are currently being sold in the Danish market; the high quality Hawaiin type of pineapples marketed by American companies and the inferior Queen's variety imported from Asian countries including China, Taiwan and Malaysia. The Survey revealed that the market for inferior processed pineapples is relatively much larger than that of superior varieties.

Tariff rates vary between sweetened pineapples and unsweetened pineapples; the duty for sweetened pineapples is 27% of the CIF value as against 7% for unsweetened pineapples. It is interesting to note that Kenya has taken full advantage of this situation by selling processed pineapples in water and natural juice, its exports having risen from nil in 1963 to 185 tonnes in 1966.

Citrus Segments. Canned citrus fruits comprising principally mandarin orange segments constitute an important growth item; imports have gone up from 76 tonnes in 1959 to 700 tonnes in 1966. While Japan's market share declined from 89% in 1959 to 60% in 1966, China (Mainland) improved its performance from 19% to 31% over the period. China's success in the orange segment market of Denmark has been attributed solely to lower price quotations, Chinese CIF prices being $ 255.90 per tonne as against Japanese price of $ 393.

Fruit Cocktails. Denmark offers a very limited market for fruit cocktails, total imports being 107 tonnes in 1966. USA dominates the market with

74% share followed by Australia 12%, prices of Australian products in 1968 being 20% lower than those of US origin. Bartlet pears have since recently been rising in popularity among Danish consumers, imports having increased from 247 tonnes in 1963 to 777 tonnes in 1966. Australia again is the main supplier with 83% share of the total Danish pears market.

Fruit Juices. The Danish imports of fruit juices were as follows during 1963-66:

Imports of Fruit Juices 7/

(Tonnes)

| | 1963 | 1965 | 1966 |
|---|---|---|---|
| Citrus Juices | 3,432.0 | 3,753.0 | 5,082.6 |
| Other Fruit Juices | 1,768.0 | 47.0 | 1,851.8 |
| Total | 5,200.0 | 3,800.0 | 6,934.4 |

Imported juice, having declined between 1963-65, rose by 81% between 1965-66, citrus juices being the most important with 73% share of the market. Trade discussions revealed that approximately 75% of imported citrus juices mainly orange and grapefruit, are in concentrated form.

Citrus juices are principally supplied by Israel, Greece, Spain and USA, Greece having led the market with 38% share in 1965. Ever since there has been a

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7/ Central Bureau of Statistics, Copenhagen

decline in Greek exports. This is attributable to the tests conducted by the Home Economic Council of Danish Government which revealed that most of the Greek brands of citrus juices were not pure. Consequently there was a complete stoppage of imports of citrus juices from Greece during 1967. On the other hand, Israeli juices have been rising in importance, their share having risen from 15% in 1963 to about 22% in 1966.

Danish juice market is basically a concentrated juice market where over 70% of all juices are imported in concentrated form. The concentrated juices are bought both by the breweries and squash manufacturers as well as private house-holders. Discussions indicated that the industrial market represents approximately 80% of the total imports of concentrated juices into Denmark, their requirements being of 60° brix or more as juices of less concentration are subject to 18% import duty. The market for single strength juices, which is contracting in Denmark, is presently controlled by national brands like Libby's and Del Monte.

Pickles and Chutneys. Total imports of pickles and chutneys during the period 1963-66 rose from 467 tonnes in 1963 to 488 tonnes in 1966. Major suppliers include Netherlands, USA and Israel. India's exports of pickles and chutneys to Denmark placed at 24 tonnes in 1966 represent a small proportion of the total Danish requirements. The Survey revealed that the prices of Indian

products are relatively higher and glass bottles used for packing far inferior. While the superiority of Indian pickles and chutneys was conceded, price and presentational aspects appear to be the major drawbacks in the way of expanded sales of Indian products.

Canned Vegetables. Very small quantities of canned vegetables are imported into Denmark, the market having remained stagnant at an annual level of 4,000 tonnes during the past 4 years.

Imports of processed vegetables in cans, mainly comprising asparagus, mushrooms, beans, tomato puree and tomato catsup were as follows:

Imports of Canned Vegetables 8/

(Tonnes)

| | 1963 | 1965 | 1966 |
|---|---|---|---|
| Asparagus | 934.4 | 1,309.6 | 1,211.1 |
| Mushrooms | 93.7 | 62.2 | 51.3 |
| Tomato Catsup | 652.8 | 561.0 | 554.9 |
| Tomato Puree | 2,075.2 | 1,838.8 | 2,402.9 |
| Total | 3,756.1 | 3,771.6 | 4,220.2 |

Tomato products comprising puree and catsup are the major items among canned vegetables imports, accounting for about 62% of the total, followed by asparagus and canned mushrooms. Other vegetables, imported in small quantities include beans, olives and gherkins.

8/ Central Bureau of Statistics, Copenhagen

While tomato puree is principally imported from UK 41% and USA 39%, Portugal constitutes the chief supplier of catsup. Tomato puree is mainly imported for use by catsup and soup manufacturers and vegetables canning units specialising in the manufacture of beans in tomato sauce.

Trade discussions indicated that presently two varieties of tomato puree are being imported into Denmark, 28-30% solids and 38-40% solids. Besides Portugal, the East European countries including Bulgaria, Czechoslovakia and Hungary, have also creeped into the market mainly on the basis of lower prices. USA, which constituted a major supplier of these items till the fifties has almost been eased out of the market on account of its uncompetitive prices. 5 kg cans are popular for packaging tomato puree, though some quantities are also imported in 200 kg barrels. Tomato puree in more than 4½ kg containers is exempt from any customs duty.

Canned asparagus is mainly imported from USA; its market share was 83% in 1966. Canned mushrooms originate mostly from France, Netherlands and Taiwan.

Channels of Distribution

Food marketing in Denmark has since recently been undergoing rapid structural changes, the trend towards centralised buying and selling being the principal market characteristic. Scandinavia has been in the forefront of the cooperative movement in Europe and there exists a powerful consumer cooperative called FDB

(Danish Consumers Cooperative Wholesale Society and Union), controlling over 25% of the total food market of Denmark. It is estimated that the grocery trade in Denmark is composed as follows:

Composition of Danish Grocery Trade 9/

| | |
|---|---|
| Independent Stores | 65% |
| Consumer Cooperatives | 25% |
| Corporate Chains | 10% |

It is apparent from the above that majority of the grocery stores in Denmark are independently owned facing competition from the Scandinavian cooperatives; most of the independent stores have formed themselves into voluntary groups for joint purchases. It has been estimated, for instance, that about 4,600 stores are attached to voluntary groups and chians, who can be contacted through a single organisation called Unil A/S (United Nordic Importers Limited AB). The associated members of Unil account for over 50% of the total wholesale turnover within the grocery trade in the country, total wholesalers membership being 60. The principal purchases of Unil comprise packer's labels but it has also its own distributor level called Eldorado' for yellow clingstone peaches. The labels are printed in Denmark and sent to processors in various countries. Normally, Unil performs the functions of an agent of the overseas companies and operates on a commission basis. Besides the buying functions, Unil also handles the importing and initial distribution functions as well as financial transactions. In addition

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9/ Field Survey

to Unil, there are two more large sholesale buying organisations in Denmark accounting for the remaining 50% wholesale trade in food merchandising.

The corporate chains constitute another important segment of retail trade structure of the Danish market for food products. IRMA is by far the largest of Danish corporate chains with approximately 178 retail outlets, concentrated mostly in the Copenhagen urban area. In 1965, the retail food turnover of IRMA was around $ 59 million, having accounted for over 4% of the total retail food turnover in the country. The other important chains include VIME, SPAR, and CENTRA. While IRMA imports its requirements directly, other chains including VIME and BAMBA undertake imports through a central organisation.

FDB, however, is the single largest outlet for food retailing in Denmark with 2,360 stores scattered all over the country, their food turnover in 1965 having amounted to $ 265 million. Purchases of all these stores run by various provincial cooperative apex organisations are made by FDB Central Office.

The brief analysis given above brings forth the growing concentration in buying power among fewer purchasing organisations catering to the requirements of independent as well as affiliated food retail outlets in the country. It has been estimated, for example, that it is possible to reach 90% of the total Danish food market by contacting 6 buying organisations.

Though some of these centralised buying organisations effect direct imports, a major proportion of the imported foodstuffs is still supplied by importing

agents who possess thorough knowledge of the market and are in direct contact with most of the buying organisations. Besides, the agency costs are comparatively low, normally less than 5% of the total sales.

Import Policy and Regulations

There are no special restrictions on imports of processed fruits and vegetables in Denmark. However, all imports are subject to ad valorem duties being in the range of 15% for tomato juice to 27% for canned fruits with sugar. Details of the custom tariff appear at Volume V, Chapter (i) of the Report. Specific food and health regulations in relation to fruit juices and canned fruits and vegetables are given at Volume V, Chapter 3(i) of the Report.

## 5.11 GREECE

### Background

With a per capita income of $ 690 and GNP $ 4,970 in 1965, Greece is relatively less developed among the OECD countries. Population has been estimated at 8.60 million in 1965. In tune with its general economic development, the per capita private consumption expenditure was merely $ 490 in 1965, food accounting for 37.4% of the total private consumption.

Greece produces a wide range of fruits and vegetables, of which citrus, peaches, apricots, pears, table grapes, tomatoes and peas are important. According to a recent Agricultural Survey[1/], the areas covered by fruit trees and vegetable crops have been reckoned at 0.31 million hectares.

Greek fruit and vegetable industry (fresh and processed) had registered rapid growth since 1950s and the progress achieved in respect of peaches and citrus has been impressive. However, the Greek industry is considered to be relatively weak as compared to the other fruit and vegetable growing countries in the Mediterranean region. Small horticultural holdings, lack of adequate internal demand and lower productivity constitute some of the deficiencies faced by the Greek industry. The Government has therefore been subsidising the exports of Greek products.

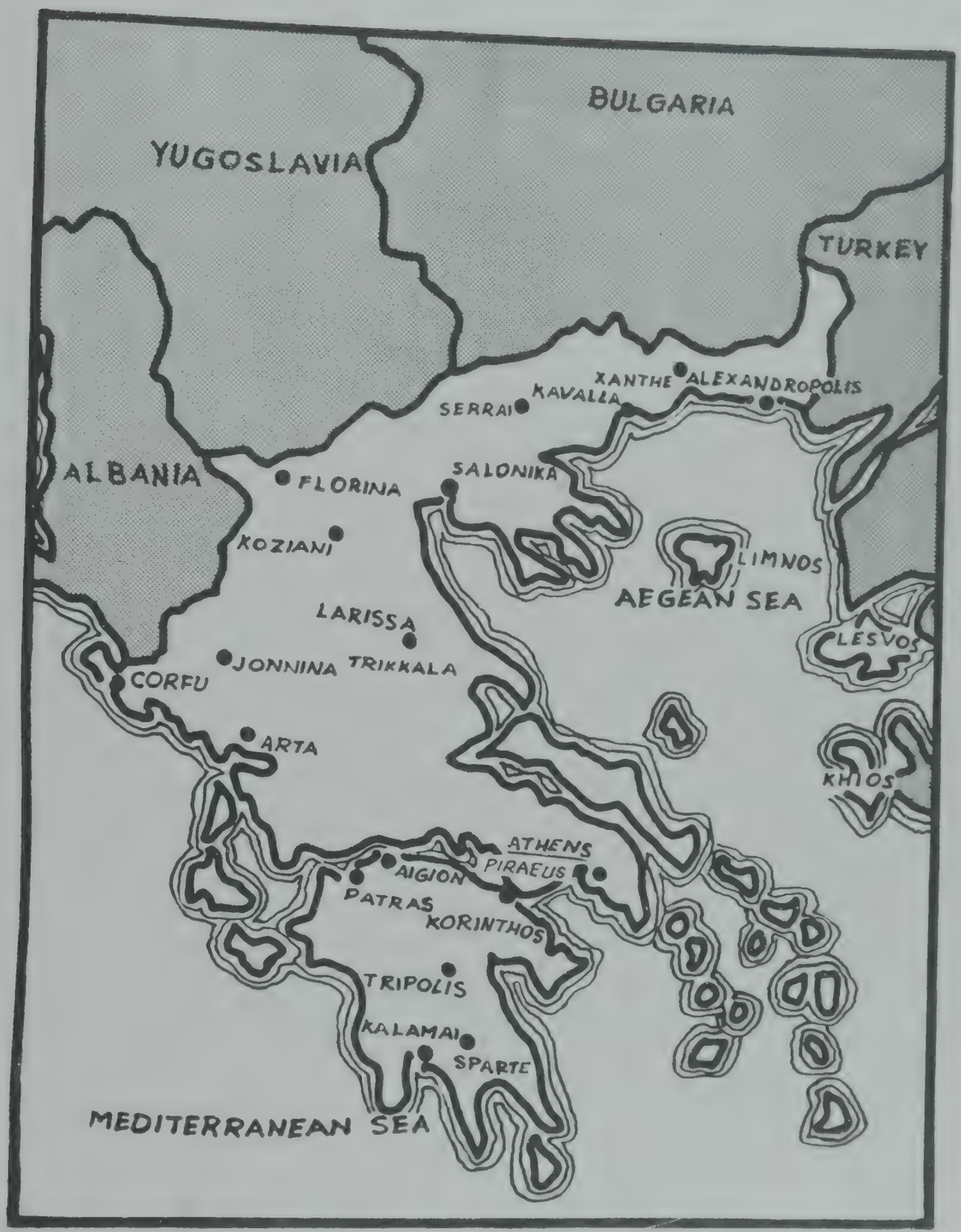
### A. Fresh Fruits and Vegetables

### Market Size

The average annual consumption of fresh fruits and vegetables during 1964-65 was as follows:

(Next page)

1/ Agricultural Statistics of Greece, Athens, 1964.


BULGARIA
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KOZIANI
LIMNOS
AEGEAN SEA
LARISSA
LESVOS
JONNINA
TRIKKALA
CORFU
ARTA
KHIOS
ATHENS
PIRAEUS
AIGION
PATRAS
KORINTHOS
TRIPOLIS
KALAMAI
SPARTE
MEDITERRANEAN SEA

Apparent Consumption of Fresh Fruits and Vegetables in Greece 2/
(1965-66 Average)

Quantity : Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 1,133.3 | - | 1,586.2 | - |
| Imports | 8.8 | 1.40 | 17.80 | 2.00 |
| Exports | 216.9 | 24.50 | 17.00 | 1.70 |
| Apparent Consumption | 924.9 | - | 1,587.01 | - |
| Per Capita Consumption (kg) | 107.6 | - | 184.5 | - |

It will be seen from the above table that the average annual production of fresh fruits and vegetables during 1965-66 was about 2.7 million tonnes, of which fruits accounted for 42%. The balance of fresh fruit trade is predominantly in favour of Greece, imports being negligible.

Production. The horticultural production of major fresh fruits and vegetables in Greece during 1965-66 was as follows:

Production of Major Fruits and Vegetables 3/

(Thousand Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Fruits | | |
| Citrus | 417.6 | 509.0 |
| Water melons | 406.9 | 480.2 |

Contd.

2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-1.11, A-2.11, A-3.11

3/ Ministry of Agricultural, Greece

| | 1965 | 1966 |
|---|---|---|
| Table Grapes | 206.9 | 139.1 |
| Apples | 165.9 | 165.7 |
| Melons | 102.4 | 133.3 |
| Peaches | 93.3 | 95.1 |
| Pears | 45.0 | 55.1 |
| Vegetables | | |
| Potatoes | 589.4 | 581.0 |
| Tomatoes | 548.2 | 548.0 |
| Cabbages | 108.2 | 100.9 |

Other crops include apricots, cherries, lettuce, beans, cucumbers and onions.

Citrus, as is well known, is a very important crop grown in Greece. According to official data, oranges covered an area of about 20,000 hectares, lemons 7,500 hectares and tangerines 3,200 hectares in 1963. It is understood that 70 to 75%, of plantings represented commercial varieties suitable for export marketing as fresh fruit and for processing. The total production of citrus during 1964 was as follows:

Production of Citrus in Greece 4/

(Thousand Boxes of 30 kg each)

| | 1964 |
|---|---|
| Oranges | 9,322 |
| Lemons | 2,562 |
| Tangerines | 783 |

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4/ Ministry of Agriculture, Greece

The growth in the production of citrus fruit in Greece has been rapid and is expected to continue to rise in the coming years, other things being equal. The average yield during 1950-64 has been estimated at 30 kg per tree of oranges and lemons. Steps are being initiated to raise field yields in Greece.

Development Plan. The Government of Greece is taking concrete steps for expanding the horticultural base of the country. The horticultural development envisaged in the draft five year Economic Development Plan of Greece (1960-70), now defunct, includes the following projections by 1970:

Area: Thousand Hectares
Production: Thousand Tonnes

| | 1964 | | 1970 | |
|---|---|---|---|---|
| | Area | Production | Area | Production |
| Horticultural Production | 186.2 | 2,587 | 200 | 3,072 |
| Citrus | 42.0 | 427 | 53 | 652 |
| Other Fruits | 88.0 | 596 | 110 | 710 |

Exports and domestic demand have also been projected in the draft plan as given under:6/

Qty: Thousand Tonnes
Val: Million Drachmas

| | Export Demand | | | | Domestic Demand | | | |
|---|---|---|---|---|---|---|---|---|
| | 1964 | | 1970 | | 1964 | | 1970 | |
| | Qty | Val | Qty | Val | Qty | Val | Qty | Val |
| Citrus | 140 | 214 | 220 | 324 | 287 | 436 | 432 | 642 |
| Other fresh products | 885 | 175 | 130 | 260 | 502 | 1,230 | 588 | 1,404 |
| Dried Fruit | 27 | 28 | 40 | 129 | 77 | 539 | 90 | 551 |

5/ Centre of Planning and Economic Research, Athens

6/ Ibid

It will be seen from the above that citrus, the most important fruit of Greece, is expected to show remarkable expansion in production and exports to the extent of over 50% between 1964 and 1970.

The plan has since been revised. The revised plan does not indicate any production estimates but discussions with the Centre of Economic Planning and Research indicated that the estimates as given above can be taken as generally valid for 1964-70.

Though the revised plan makes no specific mention about the financial outlay for different products, the following figures appearing in the original plan are likely to be adhered to:7/

| | Million Drachmas |
|---|---|
| A. Ware-houses for Agricultural Products | 610 |
| B. Refrigeration Plants | 35 |
| C. Central Vegetable Market | 200 |
| D. Central Live Stock | 25 |
| E. Sales Promotion for Greek Agricultural Products | 100 |
| Total | 970 |

Subsidies

The Government grants liberal subsidies both for production and exports with a view to making the Greek products competitive in the world market. The following table gives an idea of the extent of Government subsidies during the last few years:8/

(Next page)

7/ Centre of Planning and Economic Research, Op. Cit.

8/ Ministry of Agriculture, Greece.

(Million Drachmas)

| Year | Cost of Direct Agricultural Support (Fruits and Vegetables) |
|---|---|
| 1961 | 165 |
| 1962 | 270 |
| 1963 | 92 |
| 1964 | 257 |
| 1965 | 685 |
| 1966 | 825 |
| 1967 | 810 |

In addition to direct agricultural support being given to the Greek horticulturists, the Government of Greece also extends price support to the exportable products, some of which are mentioned below:9/

| | Drachma per kg. |
|---|---|
| Peaches | 0.30 - 0.60 |
| Citrus | 0.30 - 0.60 |
| Tomatoes | 0.30 --0.50 |
| Potatoes | 0.40 - 0.50 |
| Apples | 0.20 |

Subsidies with respect to different commodities fluctuate from year to year except in the case of citrus fruits for which they are fixed from season to season. The Survey revealed that peaches were subsidiesed at Drachma 0.30 per kg when exported by rail, Drachma 0.50 - 0.60 per kg when exported by ship and Drachma 0.40 per kg when exported by road. These subsidies are based on the understanding that the producer receives a minimum price of Drachmas 1.40 per kg. Likewise, lemons are

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9/ Ministry of Agriculture, Op. cit.

subsidised at Drachma 0.50 - 0.60 per kg to ensure producer price of Drachmas 2.10 per kg and Navel oranges at Drachma 0.50 per kg to guarantee producer price of Drachmas 2.00 per kg.

In all, there are about 20 different schemes to subsidise the means of production, 12 schemes to support product prices and 11 types of export subsidies and provisions to cover deficits in the marketing of 10 major products.

It was gathered from the Survey that the horticultural industry has been expanding in Greece not so much on normal economic growth factors but is rather dependent on the incentives and subsidies offered by the government mainly with the objective of bridging the gap between domestic and international prices.

With a view to promoting the exports of Greek fruits and vegetables, an organisation called 'New Agrex' has been established by the Government of Greece. It is owned partly by the cooperatives and the Agricultural Bank of Greece. ELIAP (organisation for providing processing facilities for agricultural products) a body similar to New Agrex was established in 1962 to provide the means and facilities to growers for the development of a viable export sector. This organisation is primarily concerned with the transport and storage of produce, and supervision of refrigeration and packing facilities.

Besides, fertilizers and machinery are also subsidised in Greece both through controlled prices and direct subsidies or loans, when purchased through the Agricultural Bank of Greece. The Agricultural Bank of Greece constitutes the most important agency for the implementation of the Greek agricultural development programmes.

Exports

Citrus. Citrus, especially oranges, constitutes the most important fruit crop of Greece. Mandarins, clementines and lemons rank next in importance. According to FAO, production of citrus fruits rose from 257,900 tonnes in 1957-60 to 365,700 tonnes in 1963-66, domestic consumption having accounted for 82%. While local consumption of fresh fruits increased marginally, that of processed items quadrupled over the period. Exports doubled during the decade under review, oranges having claimed the lion's share of expansion. The average annual utilisation of the citrus fruit in Greece during 1963-66 as against 1957-60 is presented below:

Current Production and Utilisation of Citrus 10/

(Thousand Tonnes)

| | 1957-60 | | | | 1963-66 | | | |
|---|---|---|---|---|---|---|---|---|
| | | Domestic Consumption | | | | Domestic Consumption | | |
| | Production | Fresh | Processed | Exports | Production | Fresh | Processed | Exports |
| Oranges | 173.6 | 140.9 | 15.0 | 18.1 | 264.3 | 146.9 | 60.0 | 57.4 |
| Mandarins and Clementines | 24.9 | 19.4 | - | 5.5 | 21.4 | 17.0 | - | 4.4 |
| Lemons | 59.4 | 33.4 | 3.5 | 22.5 | 90.0 | 39.8 | 17.0 | 33.2 |
| Total Citrus | 257.9 | 193.4 | 18.5 | 46.1 | 365.7 | 203.7 | 77.0 | 95.0 |

As against the production of 378,000 tonnes during 1966, exports of oranges amounted to 84,569 tonnes, major buyers being West Germany, Austria, Yugoslavia, USSR and East Germany. Exports, however, declined to 48,728 tonnes in 1967, mainly due to decreased output on account of frost.

10/ Outlook for Production and Trade of Selected Horticultural Products in Mediterranean Countries, Report of Greece, FAO, Rome, 1967.

Lemons constitute the second most important citrus product in the Greek export trade. Their exports, however, declined from 40,623 tonnes in 1965 to 24,874 tonnes in 1967. Over 90% of the exports of Greek lemons are mainly directed to East European countries, including USSR, East Germany and Poland during 1967.

Exports of mandarins have also declined over the period 1965-67, falling from 4,541 tonnes in 1965 to 2,479 tonnes in 1967. Whereas West Germany and Austria constituted the largest buyers of mandarins till 1966, 50% of the total exports in 1967 flowed to Czechoslovakia and Hungary.

Apples. After citrus, apples constitute the largest fruit crop of Greece both in terms of production and exports. Average annual exports of apples between 1963-64 and 1965-66 totalled 13,100 tonnes out of an aggregate annual production of 154,200 tonnes. A major proportion of the apple production is consumed locally in fresh form, leaving very small surpluses for export markets as would be evident from the table given below:

Apple Production and Utilisation 11/

(Thousand Tonnes)

| | 1957-58 to 1959-60 | 1063-64 to 1965-66 |
|---|---|---|
| Production | 104.2 | 154.2 |
| Domestic Consumption | 90.2 | 141.1 |
| Exports | 14.0 | 13.1 |

Exports of fresh apples have been very irregular, fluctuating normally between 10,000 and 20,000 tonnes annually thus appearing to show no definite trend. According to FAO,

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11/ Outlook for Production and Trade of Selected Horticultural Products in Mediterranean Countries, Op. cit.

production of apples will rise to 210,000 tonnes and 233,000 tonnes respectively during the years 1970 and 1975.

Exports of apples which amounted to 28,624 tonnes during 1966 have fallen steeply to 3,648 tonnes in 1967, in tune with the general decline in exports of fresh fruits during 1967. Principal buyers of Greek apples include Finland, East Germany and West Germany.

Peaches. Among deciduous fruits, peaches hold a commanding position in the export trade of horticultural produce in Greece. They are principally exported in fresh form. For instance, out of the total production of 80,600 tonnes in 1963-65, 40,200 tonnes were exported. The following table would indicate the average annual production and utilisation of peaches during the last decade:

Production and Utilisation of Peaches 12/

(Thousand Tonnes)

| | 1957-59 | 1963-65 |
|---|---|---|
| Production | 46.2 | 80.6 |
| Domestic Consumption | 28.3 | 32.4 |
| Processing | 1.5 | 8.0 |
| Exports | 16.4 | 40.2 |

The production and exports of peaches rose considerably during 1963-65, when annual exports averaged at 40,200 tonnes as against the total production of 80,600 tonnes. Exports rose rapidly from 40,200 tonnes in 1965 to 48,828 tonnes in 1967. West Germany accounted for over 90% of the total exports of Greece in 1967, other major buyers being UK and Netherlands.

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12/ Outlook for Production and Trade of Selected Horticultural Production in Mediterranean countries, Op. cit.

Grapes. Table grapes constitute another important item among fruit crops in Greece, the annual average exports during 1963-65 being 19,000 tonnes as against the total production of 130,000 tonnes. The following table presents data relating to production and utilisation of table grapes over the period 1957-59 and 1963-65:

Production and Utilisation of Table Grapes 13/

(Thousand Tonnes)

| | 1957-59 | 1963-65 |
|---|---|---|
| Production | 113 | 130 |
| Domestic Consumption | 95 | 111 |
| Exports | 18 | 19 |

Exports, accounting for merely 15% of the total production during 1963-65, amounted to 27,218 tonnes in 1965. 1967 witnessed a further decline in exports when only 9,817 tonnes were exported. Major buyers of Greek apples include West Germany, Finland and Norway.

Apricots. Exports of apricots have been rising over the period 1965-67, jumping from 1,369 tonnes in 1965 to 12,192 tonnes in 1967. West Germany took approximately 75% of the total exports in 1967, the remaining 25% going to Austria.

During 1963-65 period, out of a total production of 20,300 tonnes, 2,800 tonnes were exported and 1,500 tonnes processed, thus leaving 16,000 tonnes for domestic consumption in fresh form. Though apricots constitute one of the minor fruit crops in Greece, their importance is rapidly rising in export trade on account of the higher realization. Apricots show considerable expansion possibilities in Greece, production having risen from 8,700 tonnes in 1950 to 26,564 tonnes in 1966.

Potatoes. Production of potatoes has been rising since 1960s,

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13/ Outlook for Production and Trade of Selected Horticultural Products in Mediterranean Countries, Op. cit.

reaching a record of 600,000 tonnes in 1965 as compared to 480,000 tonnes in 1950. Exports have been erratic during 1958-66, ranging from 11,000 tonnes in 1958 to 21,600 tonnes in 1965 and 7,723 tonnes in 1966. Domestic demand practically absorbs the entire production of potatoes and approximately 5% of the produce has been exported to Italy and UK during the last 10 years.

Imports

As mentioned earlier, Greek imports of fresh fruits and vegetables are negligible. Total imports during 1966 were around 21,600 tonnes, comprising mainly bananas and seed potatoes.

Bananas are imported in large quantities amounting to 10,133 tonnes during 1966 witnessing a rise of about 25% as against 1965. Bananas are supplied mainly by Israel accounting for over 80% of the total imports during 1966.

Seed potatoes were imported to the extent of 11,488 tonnes during 1966 as against 16,986 tonnes in 1965. Ireland constitutes the most important supplier of seed potatoes to Greece.. Some quantities of seed potatoes have also been imported from Canada when supplies from Ireland have been short.

Import Policy and Regulations

Imports of fresh fruits are subject to a duty of 50% ad valorem, the duty on vegetables being calculated at the rate of 30 Drachmas per tonne.[14/]

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14/ Standards and Regulations on Fruits and Vegetables Industry of Survey Countries, Volume V, Table II (j), of the Report.

## B. Processed Fruits and Vegetables

### Market Size

Despite high percentage of expenditure on food items, the consumption of processed fruits and vegetables is low in Greece. The average annual rate of growth in this sector has been merely 2.9% between 1958 and 1965. Greeks consume very limited quantities of canned products mainly on account of their high prices in comparison with fresh fruits which they traditionally prefer. This would be evident from the following table indicating average annual consumption during 1965-66:

Apparent Consumption of Processed Fruits and Vegetables in Greece 15/

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits (including jams and juices) | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 46.5 | - | 20.3 | - |
| Imports | - | - | 1.1 | 0.75 |
| Exports | 28.9 | 6.40 | 16.2 | 6.40 |
| Apparent Consumption | 17.6 | - | 5.3 | - |
| Per Capita Consumption (kg) | 2.0 | - | 0.4 | - |

15/ i) Bulletin of External Trade Statistics, National Statistics Service of Greece, Athens

ii) Ministry of Agriculture, Government of Greece, Athens

It would be clear from the above that consumption of processed fruits and vegetables is very little, having averaged at 22,900 tonnes during 1965-66. As against the per capita consumption of fresh fruits and vegetables of 292.1 kg, that of processed items was 2.4 kg only.

The average annual production of processed fruits and vegetables during 1965-66 was about 66,500 tonnes of which processed fruits accounted for 69%. Greece is a net exporter of processed products, imports being minimal.

## Production and Exports

### Canned Fruits

The fruit and vegetable canning industry of Greece is relatively of recent origin. As indicated earlier, consumption of fresh fruits and vegetables in the country is substantial. However, with the maturation of increased plantings and adoption of improved cultural techniques, the Greek Canning industry expanded at a rapid pace between 1958 and 1966. The industry has yet to establish systematic rapport with the growers as most of the canneries reportedly rely on small sized farms. Efforts are being made to enter into contractual arrangements with large farms for the regular supply of superior quality produce for canning purposes.

While detailed statistics on production and external trade of processed fruits and vegetables appear at Tables B-1.11, B-2.11 and B-3.11, Volume IV, production and exports of the major items are discussed below.

Production of major processed items during 1963-65 was as follows in Greece:

(Next page)

Production of Major Processed Fruits 16/

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Processed Fruits | 9.4 | 11.0 | 14.0 |
| Peaches | 5.4 | 7.8 | 13.0 |
| Apricots | 1.1 | 2.7 | 0.5 |
| Others | 2.9 | 0.5 | 0.5 |

It would be seen from the above that Greek canned deciduous fruit production expanded rapidly in the recent past, rising from about 9,400 tonnes in 1963 to 14,000 tonnes in 1965 reflecting a rise of over 50%.

According to the Ministry of Agriculture, Greece, processed fruit production quadrupled between 1958 and 1966, rising from 152,000 cases (24x2½ basis) in 1958 to 632,000 cases in 1966. Peaches constituted the single largest item packed in Greece accounting for over 90% of the total production in 1965, as against 55% in 1963. Apricots are the second important item, though far behind peaches, only 500 tonnes having been processed in 1965 as against 1,071 tonnes in 1963. Other fruits, mainly cherries, have also been declining in importance. According to the Ministry of Agriculture, Greece, the output of different deciduous fruits between 1963 and 1966 was as follows:

(Thousand Cases of 24x2½)

| Year | Peaches | Apricots | Others (mainly Cherries) | Total |
|---|---|---|---|---|
| 1963 | 222 | 90 | 152 | 464 |
| 1964 | 316 | 199 | 24 | 539 |
| 1965 | 524 | 30 | 24 | 578 |
| 1966 | 290 | 281 | 61 | 632 |

16/ Ministry of Agriculture, Government of Greece, Athens

Processed peaches in Greece comprising mainly peach halves or slices in syrup constitute the most popular products in Europe, especially UK and West Germany. Yellow clingstone variety of peaches commands the largest share in the world trade for peaches. Limited market exists for freestone varieties such as Elberta, the main crop variety grown presently in Greece. In the absence of yellow clingstone peaches, Greek peaches suffer from disadvantage in competing effectively with the clingstone varieties of Australia and USA. Steps are therefore being taken to plant yellow firm-fleshed freestone varieties which reportedly make a more superior product than that of Elberta variety. The Government of Greece has been granting crop subsidies to the local deciduous fruit growers but the current thinking is that incentives should be paid to such growers who substitute Elberta variety by firm-fleshed and clingstone varieties which find ready markets abroad.

Considerable quantities of processed deciduous fruits are exported from Greece to overseas markets. Though details are not available, it is presumed that a major proportion of exports comprised peach halves and sliced peaches. Exports which were around 263 tonnes in 1965, rose markedly to 5,372 tonnes in 1967. Principal buyers of Greek deciduous fruits include West Germany, UK and France, West Germany buying approximately 40% of the total exports. Some quantities of fruit puree and paste, based on peaches and apricots, are also being exported to West European markets. Exports of fruit pastes, however, declined from 4,975 tonnes to 3,676 tonnes between the years 1965-67. While in 1965, West Germany took more than 75% of the total exports of pastes and purees, France and Bulgaria were the major buyers in 1967.

Fruit Juices. Large quantities of fruit juices are manufactured in Greece, production having risen from about 27,900 tonnes in 1963 to 36,200 tonnes in 1965. The following table presents the break-down of domestic production of juices during 1963-65:

Production of Major Processed Juices 17/

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Fruit Juices | | | |
| Orange (11-12° Brix) | 27.9 | 31.7 | 36.2 |
| Lemon (11-12° Brix) | 22.1 | 29.0 | 29.0 |
| Tomato (5-7° Brix) | 0.9 | 1.2 | 1.6 |
| Apple (70° Brix) | 0.3 | 1.4 | 0.6 |

Orange juice, it would appear from the above, is the most important fruit juice accounting for about 83% of total juice production, during 1965. Production, which has been rising steadily over the years levelled at 29,000 tonnes during 1964 and 1965, maintaining its dominating position among the various juices in Greece. Lemon juice which ranks next in importance has shown erratic production trends over 1963-65. Tomato juice has been witnessing rapid growth, while apple juice is not registering any definite trend.

Greece constitutes one of the important supplier of concentrated as well as single strength juice, particularly orange. The Survey revealed that juices are rapidly gaining popularity in the European markets.

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17/ Orange and lemon juices have been shown on single strength basis for purposes of comparison; large proportion of production is marketed in Concentrated form normally ranging from 65° to 70° brix.

Exports of various fruit juices during 1965-66 were as follows:

Exports of Major Fruit Juices 18/

(Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Fruit juices, unconcentrated containing sugar | 11,196 | 13,342 |
| Fruit juices, unconcentrated | 287 | 707 |
| Fruit juices, concentrated | 3,643 | 2,869 |
| Grape musk higher than 18° | 5,372 | 3,912 |

Though official statistics do not indicate the break-down of fruit juice exports, it was understood that besides grape, the remaining exports comprise only citrus juices. While exports of unconcentrated citrus juices rose from 11,196 tonnes in 1965 to 13,342 tonnes in 1966, those of concentrated citrus juices fell from 3,643 tonnes in 1965 to 2,869 tonnes in 1966. Principal buyers of Greek unconcentrated juices include West Germany, Belgium-Luxemburg, Netherlands, UK, Sweden and Czechoslovakia, West Germany accounting for approximately 40% of the total exports in 1966 as against 30% in 1965. While the purchases of UK, Sweden, Netherlands have declined over the period, Denmark increased its imports from 115 tonnes to 1,499 tonnes between the years 1965 and 1966.

Concentrated juices exports of 65° brix, mainly exported to West Germany, UK and USA, aggregated to 2,869 tonnes in 1966 as against 3,646 tonnes in 1965. While West Germany bought larger quantities of juices in 1966 as against 1965, UK's imports were halved during this period.

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18/ Bulletin of External Trade Statistics, National Statistics of Greece.

While the exports of unconcentrated citrus juices rose over the period, exports of concentrated juiced declined. This is mainly on account of fact that the supply of raw material of satisfactory quality is limited in Greece, resulting in inadequate manufacture of a suitable product which can effectively meet competition in European markets.

Processed Vegetables

Tomato products, green beans, okra, peas, spinach and cabbage comprise the main vegetables processed in Greece. Production in Greece rose to 21,800 tonnes in 1965 from 19,579 tonnes in 1963. Production of major vegetables canned in Greece during 1963-65 was as follows:

Production of Major Processed Vegetables 19/

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Tomato paste (20-30° brix) | 9.5 | 10.7 | 12.3 |
| Peeled tomatoes | 1.8 | 1.8 | 3.8 |
| Green beans | 2.6 | 1.1 | 2.0 |
| Peas | 1.2 | 1.9 | 1.3 |
| Okra | 3.3 | 2.7 | 1.1 |
| Others | 1.0 | 0.5 | 1.3 |

It would appear from the above that tomato paste of 28-32° brix is by far the most important item, production having risen from 9,500 tonnes in 1963 to 12,300 tonnes in 1965. Likewise, peeled tomatoes also rose in importance, production jumping from 1,849 tonnes to 3,800 tonnes between 1963-65. The cost of production for tomato products in Greece (roughly 25 units) is relatively higher than Portugal and Bulgaria, the two major competitors in the world markets. The trade does not expect much growth in

19/ Ministry of Agriculture, Government of Greece, Athens

this sector unless adequate steps are taken to ensure a reasonable reduction in the cost of production.

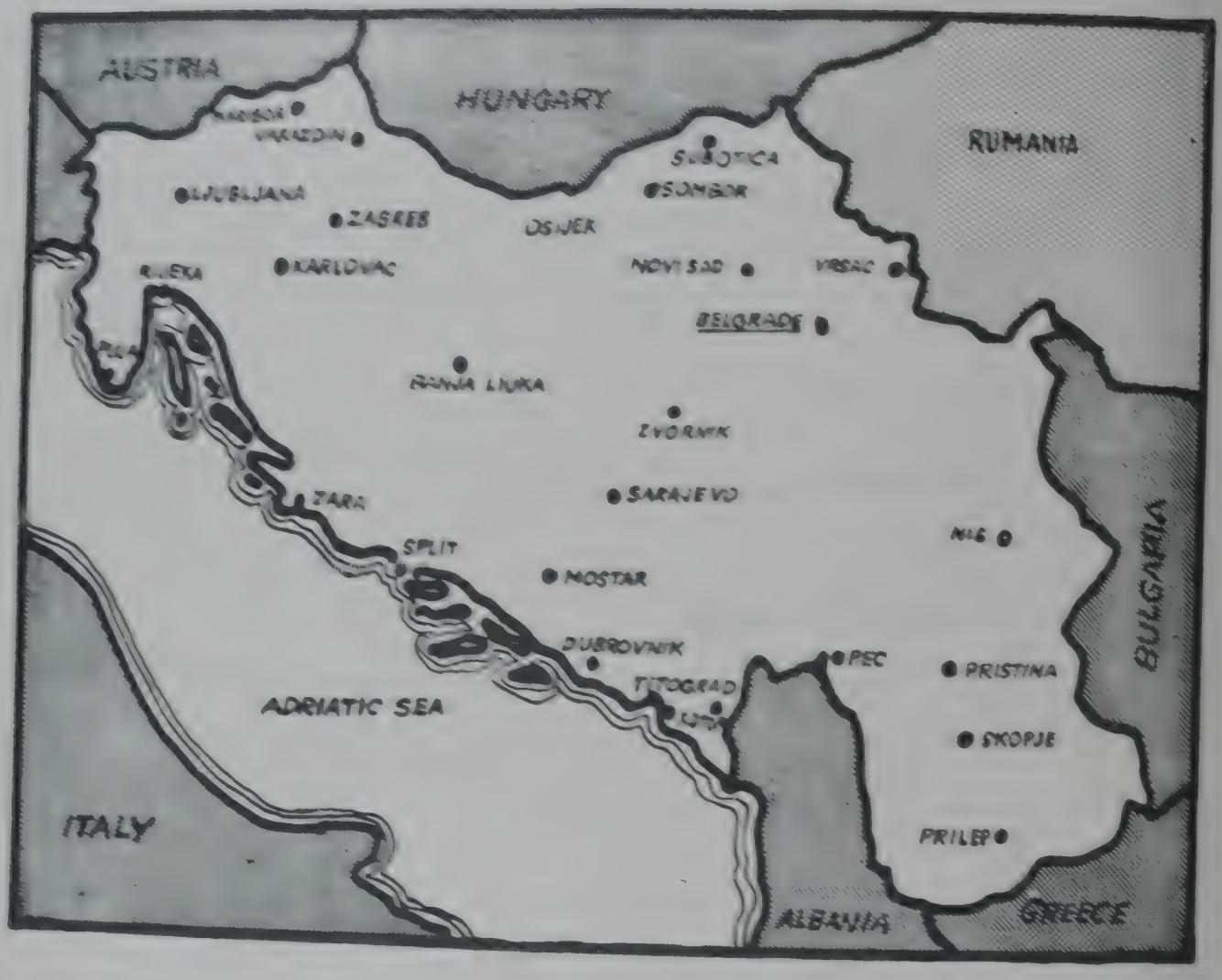
With the exception of tomato products, the production of other processed vegetables has been declining considerably in Greece. For instance, there was a noticeable decline in the production of green beans and okra, which after tomatoes constitute the major items among processed vegetables in Greece. The decline in the production was mainly attributable to the general crisis faced by the European canning industry during 1964-65.

Processed vegetables comprising mainly concentrated tomato, okra, peas and beans were exported to the tune of 11,300 tonnes in 1966 as against 17,300 tonnes in 1964. Exports of concentrated tomato puree, one of the major export items of Greece, aggregated to 4,692 tonnes in 1967 as against 3,899 tonnes in 1965.

Principal buyers of concentrated tomato puree include Lebanon, UK and Iran. Imports of UK have risen from 616 tonnes in 1965 to 1,600 tonnes in 1967. Lebanon which was buying tomato puree from Greece in limited quantities till 1965, turned out to be a principal buyer of Greek tomato puree in 1967 when her purchases were around 1,726 tonnes, accounting for 35% of the total exports of Greece.

Other vegetables including okra, peas, beans and spinach preserved with or without vinegar were exported to the extent of 2,444 tonnes in 1967 as against 3,071 tonnes in 1965 showing a marginal decline over the period. Principal buyers of these vegetables include France, USA, West Germany and Canada.

In addition to these vegetables, olives preserved otherwise than by vinegar, constitute the most important item among semi-processed vegetables exported currently from Greece. Exports were as high as 11,950 tonnes in 1965 but declined considerably in 1966, on account of the general crisis in canned vegetable industry. Olives are mainly imported by USSR, Romania, USA, Italy and Australia.


AUSTRIA
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LJUBLJANA
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OSIJEK
RIJEKA
KARLOVAC
NOVI SAD
VRSAC
BELGRADE
PULA
BANJA LUKA
ZVORNIK
ZARA
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DUBROVNIK
PEC
PRISTINA
TITOGRAD
ADRIATIC SEA
SKOPJE
ITALY
PRILEP
ALBANIA
GREECE
BULGARIA

## 5.12 YUGOSLAVIA

### Background

The geographical situation, topography, varied climatic regions and different types of soils obtaining in Yugoslavia facilitiate the cultivation of a variety of fruits and vegetables in the country. Fruit and vegetable production has been estimated at Dinars 192 billion ( $ 16 billion) in 1965, which was approximately 18% of the total agricultural output in the year.[1] The steady rise in personal incomes from $ 200 in 1961 to $ 306 in 1965 and the rapid economic changes taking place in Yugoslavia, have given fillip to increased consumption of fresh and processed fruits and vegetables. With a sizeable horticultural base, Yugoslavia is also a net, though nominal, exporter.

### A. Fresh Fruits and Vegetables

### Market Size

The market size of fresh fruits and vegetables in Yugoslavia during 1966 can be inferred from the following table:

Apparent Consumption of Fresh Fruits and Vegetables in Yugoslavia (1964-66 -- Average) [2]

Quantity: Thousand Tonnes
Value: Million Dollars

| | Fresh Fruits | | Fresh Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 2,671.8 | - | 4,332.3 | - |
| Imports | 90.5 | 30.0 | 18.0 | 1.80 |

(Contd. next page

1/ Production of Fruit and Vegetables in OECD Member Countries, Report on Turkey and Yugoslavia, OECD, Paris, 1967.

2/ Statistical Year Book of Yugoslavia and Commodity Trade Statistics, United Nations.

| | Fresh Fruits | | Fresh Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Exports | 40.5 | 5.90 | 23.1 | 12.30 |
| Apparent Consumption | 2,721.8 | - | 4,328.0 | - |
| Per Capita Consumption (kg) | 136.0 | - | 216.0 | - |

It would be seen from the above that almost the entire production is consumed locally in fresh form; domestic consumption averaged at 7 million tonnes over 1964-66 comprising 2.7 million tonnes of fresh fruits and 4.3 million tonnes of vegetables. Despite the substantial production base in the country, average annual exports amounted to merely 63,600 tonnes over the period. Imports form but an inconsequential proportion of the total consumption in the country.

Production

Area under Cultivation. Of the total agricultural land area of 14.9 million hectares, approximately 0.69 million hectares were under fruit orchards and vineyards during 1965 as against 0.65 million hectares in 1954. Vegetables, on the other hand, covered 0.16 million hectares during 1965, comprising mainly open field cultivation. Between 1960-65, about 80 hectares of glass houses have been developed principally for tomato and cucumber crops. An additional 120 hectares of glass houses equipped with central heating system are under construction and would be ready for use by 1970.

The recent developments that have taken place in the horticultural field mainly relate to the rapid progress of fruit orchards and vineyards under collective holdings, as would be evident from the table given below:

Fruit Orchards and Vineyards in Yugoslavia 3/

(Thousand Hectares)

| Year | Collective | Private |
|---|---|---|
| 1954 | 36 | 622 |
| 1960 | 54 | 629 |
| 1963 | 71 | 622 |
| 1964 | 72 | 621 |
| 1965 | 74 | 622 |

The above table clearly brings out the growing importance of collective holdings in the horticultural production of Yugoslavia. While area under collective farms more than doubled during 1954-65, land under private farms remained stationary. The area under collective holdings is projected to rise to 91,000 hectares and that under private holdings to decline to 619,000 hectares by 1970.

Fresh Fruits. Total production of major fruits has been continuously rising in Yugoslavia as would be seen from the table given below:

(Next page)

3/ Production of Fruit Vegetables in OECD Member Countries Report on Turkey and Yugoslavia, OECD, Paris, 1967, Op. Cit.

Production of Fruits in Yugoslavia[4/]

(Thousand Tonnes)

| | 1957-60 | 1963 | 1964 | 1965 |
|---|---|---|---|---|
| Grapes | 946.0 | 1,220.0 | 1,250.0 | 1,230.0 |
| Plums | 638.0 | 776.0 | 760.0 | 723.0 |
| Apples | 201.5 | 280.0 | 159.0 | 214.0 |
| Pears | NA | NA | 55.0 | 83.9 |
| Apricots | 23.0 | 19.2 | 34.9 | 22.3 |
| Peaches | NA | NA | 40.0 | 46.7 |
| Melon and Water Melons | 358.0 | 407.0 | 474.0 | 481.0 |
| Total (incl. others) | 2,073.0 | 2,653.0 | 2,917.2 | 2,891.5 |

Production of fruits in Yugoslavia has been upward since 1957 with the sole exception of 1965 when there was considerable decline owing to frost conditions. The rapid growth that has taken place in the country is attributed not only to expansion in cultivated area but also to improvements in cultural practices. In the overall composition of fruit production in Yugoslavia, grapes accounted for approximately 40% of the total production during 1966, followed by plums 25%. Among other fruits, apples, melons, pears and cherries are important. Different varieties of grapes especially for wine-making abound in the country.

Fresh Vegetables. Increasing quantities of Continental and Mediterranean vegetables are grown in Yugoslavia, production being facilitated by the favourable ecological

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4/ Statistical Year Book of Yugoslavia, 1967, and Production of Fruits and Vegetables in OECD Member Countries, Report on Turkey and Yugoslavia, OECD, Paris, 1967, Op. Cit.

conditions obtaining in Yugoslavia. Production trend for major vegetables comprising tomatoes, onions, cabbages, cucumbers and beans, has been upward, having risen to 4.9 million tonne in 1966 from 4.4 million tonnes in 1964. Following table indicates the production of major vegetables during 1957 to 1966:

Production of Major Vegetables in Yugoslavia 5/

(Thousand Tonnes)

| | 1957-60 | 1963 | 1964 | 1966 |
|---|---|---|---|---|
| Cabbages | 535 | 523 | 569 | 610 |
| Red Peppers | 146 | 194 | 195 | 200 |
| Onions | 157 | 202 | 251 | 252 |
| Peas | 9 | 14 | 12 | 14 |
| Potatoes | NA | NA | 2,820 | 3,230 |
| Total (including others) | NA | NA | 4,372 | 4,891 |

Potatoes constitute the major vegetable grown in Yugoslavia, followed by cabbages and onions. Among others, beans, red peppers, peas and cucumbers are important. The OECD study conducted during 1967 on the horticultural production of Yugoslavia envisages an output of 6 million tonnes by 1970. This is expected to accrue from the

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5/ Statistical Year Book of Yugoslavia, and production of Fruits and Vegetables in OECD Member Countries, Report on Turkey and Yugoslavia, Op. Cit.

expansion in the area under cultivation as well as the growing importance of collective farms to which improved equipments and knowhow are made available by the Government.

Exports

Exports of fresh fruits and vegetables have registered a marked decline from 78,600 tonnes in 1964 to 50,200 tonnes in 1966, as shown below:

Exports of Fresh Fruits and Vegetables in Yugoslavia 6/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Fruits | | | |
| Plums | 24.4 | 12.9 | 5.8 |
| Grapes | 16.7 | 15.4 | 10.2 |
| Other fresh fruits | 20.1 | 6.9 | 3.5 |
| Vegetables | | | |
| Tomatoes | 1.4 | 1.3 | 2.4 |
| Other fresh vegetables | 10.7 | 8.6 | 15.9 |
| Vegetables, n.e.s. | 5.3 | 4.9 | 12.4 |
| Total | 78.6 | 50.0 | 50.2 |

6/ Statistical Year Book of Yugoslavia and Commodity Trade Statistics, United Nations.

The sharp decline in exports of plums and grapes has been mainly attributed to the growing processing industry in the country. Besides, early varieties of fruits and vegetables, which are in demand in overseas markets, are being mostly consumed locally.

Yugoslav grapes are superior in quality and are principally supplied to Austria, Czechoslovakia and East Germany, total exports having amounted to 10,200 tonnes in 1966 as against 16,700 tonnes in 1964.

Other fruits including apples, peaches, apricots and melons have also witnessed a steep fall in exports from 20,100 tonnes in 1964 to 2,500 tonnes in 1965.

Among vegetables, tomatoes occupy an important position, exports having risen from about 1,400 tonnes in 1964 to 2,400 tonnes in 1966, 80% of which were exported to East Germany. Exports of other vegetables comprising mainly onions, cabbages and beans amounted to 28,300 tonnes during 1966, as against 13,500 tonnes in 1964. These vegetables are mostly directed to West Germany, USA, UK and USSR.

Discussions with the trade indicated that in view of the rising production of high quality fruit, domestic consumption of qualities having greater demand abroad would be more than adequately met within the next few years leaving larger surpluses for export marketing. Yugoslav Government has recently established a quality control service and all shipments of fruits and vegetables are statutorily required to meet specified quality standards (OECD standards) in regard to grading, packing, etc before they are allowed to be shipped.

Imports

Being a leading producer of fruits and vegetables, Yugoslavia offers a very limited market for imported fresh produce. Detailed statistics on Yugoslav imports appear at Volume III, Table A-2.12 of the report.

Imports of oranges and tangerines rose from 38,225 tonnes in 1964 to 55,539 tonnes in 1966, being supplied mainly by UAR, Greece and Israel. Small quantities of oranges also originate from Tunisia, Algeria and Libya, but their share in the total market is negligible. Lemons and grapefruits, next in importance, were imported to the extent of 27,274 tonnes in 1966 as against 24,738 tonnes in 1964. Major suppliers of lemons and grapefruits include Italy, Israel, Greece, UAR and Tunisia, the market being almost evenly divided among them.

Imports of bananas have risen rapidly from 8,047 tonnes in 1964 to 20,353 tonnes in 1966. Guinea constitutes the market leader with a share of 65% in 1966, followed by Israel 20% and Ethiopia 10%.

Though vegetable imports comprising potatoes and tomatoes are not significant from the standpoint of total consumption, they have registered a marked increase from 7,600 tonnes in 1964 to 17,900 tonnes in 1966, potatoes representing the lion's share. Potatoes are supplied mainly by Poland, UAR and Netherlands. Imports of these items, however, are projected to decline in the coming years in view of the expanding horticultural base in the country.

B. Processed Fruits and Vegetables

Market Size

Out of the total average production of 2.67 million tonnes of fresh fruit grown in the country during 1964-66, about 1.60 million tonnes (60%) was utilised for the manufacture of wines and spirits and 0.20 million tonnes (8%) for other processed items including preserves, fruits in syrup, pulps and purees, concentrates and dried fruits. The market size of processed fruit products (excluding wines and spirits) has been estimated at approximately 170,000 tonnes (imports averaging at 2,000 tonnes and exports 32,000 tonnes) during the same period.

Of the aggregate average output of 4.33 million tonnes of fresh vegetables, about 63,000 tonnes of vegetables comprising tomatoes and cucumbers were processed during 1964-66. The marked size of processed vegetables has been estimated at about 56,000 tonnes (imports averaging at 2,500 tonnes and exports 9,500 tonnes) during the same period.

Production. Total production of major processed fruits (expressed in terms of fresh fruit) over 1963-65 was as follows:

Production of Major Processed Fruits and Vegetables in Yugoslavia 8/

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Fruits | | | |
| Grapes | 1,877.1 | 1,823.0 | 1,534.0 |
| Plums | 647.7 | 664.7 | 340.6 |

(Contd. next page)

8/ Statistical Year Book of Yugoslavia, 1966

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Apples | 72.2 | 74.1 | 47.0 |
| Cherries | 21.2 | 18.4 | 19.3 |
| Apricots | 8.6 | 6.4 | 4.5 |
| Vegetables | | | |
| Tomatoes | 57.0 | 58.0 | 59 0 |
| Cucumbers | 5.3 | 5.1 | 4.9 |
| Total | 2,689.1 | 2,649.7 | 1,809.3 |

Among fruits, grapes and plums accounted for about 97% of the total fruits processed in the country during 1963-65. Tomatoes, on the other hand, are the most important vegetables utilised for processing in Yugoslavia, total production having amounted to 59,000 tonnes in 1965. While production of fruit preparations has shown a sharp decline from 2,626,800 tonnes in 1963 to 1,745,400 tonnes in 1965, exports evinced an increase from 30,000 tonnes to 31,400 tonnes during the same pericd. On the other hand, the output of vegetables fluctuated between 60,000 tonnes, exports having registered a steep decline from 16,011 tonnes in 1964 to 6,500 tonnes in 1965. The decline in production in 1965 was mainly attributed to the shortfall in the availability of fresh fruits and vegetables conditiared by frost conditions. The Survey revealed that production had risen considerably in 1966.

Detailed information on the processing of major fruits and vegetables is given below:

i) Plums. Processing constitutes an important outlet for fresh plums in Yugoslavia; out of an aggregate production of 760,000 tonnes, 664,700 tonnes were processed during 1964.

The average production during 1961-64 was, however, higher, processing having represented 755, 800 tonnes out of the total production of 885,000 tonnes. Quantities utilised for processing declined to 340,600 tonnes in 1965 owing to the fall in production to 399,000 tonnes. OECD has projected that out of a total production of 850,000 tonnes, 700,000 tonnes of plums would be delivered for processing purposes in Yugoslavia by 1970.

According to the OECD study the breakdown of production during 1963-65 was as follows:

Production of Plums by Varieties 9/
(In terms of fresh produce)

(Thousand Tonnes)

| | Prunes | Semi-processed Products | Preserves | Spirits | Total Production |
|---|---|---|---|---|---|
| 1963 | 75.9 | 5.2 | 45.6 | 521.0 | 647.7 |
| 1964 | 106.9 | 5.4 | 44.5 | 567.8 | 664.6 |
| 1965 | 19.7 | 1.4 | 29.2 | 290.3 | 340.6 |

It would be seen from the above that spirits constitute the biggest item manufactured out of plums, having accounted for 80% of the total during 1965. Projections indicate that the percentage utilisation for spirits would decline to 43% whereas preserves and prunes would rise to 22% and 14% respectively by 1970.

Total exports of processed plums amounted to 75,500 tonnes in 1964 as against 59,500 tonnes in 1961, exports having declined to 50,400 tonnes in 1964. Among processed plums, prunes constitute the major export product accounting for 80% of the total exports in 1964, the remainder making up for preserves, semi-processed products and spirits.

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Production of Fruits and Vegetables in OECD Countries, Report on Yugoslavia, OECD, Paris, 1967

ii) Apples. Of the total production of 159,000 tonnes of apples in 1964, 74,100 tonnes were processed having shown 35% processing utilisation in the country. According to the OECD study, the proportion intended for processing is likely to decline to 25% by 1970 in view of the excessive capacity already created in the country for the processing of apples. Spirits constitute the most important item among processed apples, having accounted for 48% of the total fresh produce diverted for processing in 1964. Among others, preserves and dried apples are important though their share in the aggregate production is not considerable.

Exports of processed apples comprising mainly preserved apple, apple sauce and spirts amounted to 18,700 tonnes in 1964 as against 11,200 tonnes in 1961, preserves having accounted for 65% of the total in 1964. With the fall in production in 1965, exports declined to 2,000 tonnes in 1965 comprising only apple sauce which is a popular item among the neighbouring East European countries. With the rise in production in 1966, exports of apple products reportedly rose to the level of 10,000 tonnes.

iii) Tomatoes. Of the total production of 300,200 tonnes in 1964, 58,000 tonnes were processed having shown 19% utilisation in processed form. The proportion of fresh produce going for processing has been fluctuating between 15% and 20% over the period 1960-65. On account of the rising per capita domestic consumption of fresh tomatoes placed at 12.1 kg as against 2.2 kg for processed tomatoes, the processing sector does not represent an important outlet for the fresh produce.

Exports of tomato products are negligible having amounted to 5,000 tonnes in 1964 which subsequently declined to 1,000 tonnes in 1965. It is, however, projected that out of the total production of 350,000 tonnes of fresh tomatoes by 1970, 65,000 tonnes would be given over the processing resulting in an exportation of 16,000 tonnes of tomato products.

Exports. While separate figures for the exports of processed products are not available, the following table indicates the exports of selected groups of processed items during 1964-66:

Exports of Processed Fruits and Vegetables 10/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Fruits, Jams and Jellies including processed fruits | 16.3 | 1.0 | - |
| Fruit Juices | 7.5 | 10.8 | 8.9 |
| Fruits temporarily preserved | - | 23.3 | 22.5 |
| Fruits preserved by sugar | 6.2 | - | - |
| Vegetables preserved or prepared | 16.0 | 7.1 | 6.5 |
| Total | 46.0 | 42.2 | 37.9 |

It would be apparent that exports constitute a very inconsequential proportion of the total output of processed fruits and vegetables in Yugoslavia. While exports of processed fruits rose from 30,000 tonnes in 1964 to 31,400

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10/ Commodity Trade Statistics, United Nations

tonnes in 1966, vegetable exports fell sharply from 16,000 tonnes to 6,500 tonnes over the period. This was reportedly due to the fall in the production of tomato products in 1965-66. Major buyers of Yugoslav products include West Germany, Austria, USA and East Germany.

Imports. Imports of processed fruits and vegetables which averaged at 20,000 tonnes a year during 1961-64, declined to 6,000 tonnes in 1965 and 4,000 tonnes in 1966. Major items imported include citrus juices and certain preserved vegetables; citrus juices were imported to the extent of 1,488 tonnes in 1966, mainly emanating from Greece and Israel which together accounted for 80% of the total imports. Preserved vegetables amounting to 2,611 tonnes were supplied by USSR, Ceylon, Greece, and Tunisia.

It would thus be seen that on account of substantial production in the country, Yugoslavia hardly offers any prospects for imported processed items. Import demand of citrus juices concentrates is however likely to grow in the coming years on account of rising per capita consumption of citrus-based drinks.

Organisational Pattern

Specific steps are being taken in Yugoslavia with a view to developing the industry on a selective basis, commodities with proven sales potential having been selected for intensive development. Special attention is being paid to the development of peaches, cherries, apples and pears and it is envisaged that their production will multiply rapidly in the future. The Government of Yugoslavia attaches great importance to the development of collective orchards and vineyards which constitute a

very dynamic segment of the horticultural economy of Yugoslavia. The collectives have reportedly created a healthy impact on production in terms of quality and price stablisation of the horticultural produce.

In order to bring about integration of agriculture and its related industry, the government has encouraged the development of enterprises known as 'Kominaths'. There are approximately 300 Kominaths in Yugoslavia of which 80 have large farms and adequate processing facilities near the orchards. The details of the working of a typical Kominath are furnished below.

The Kominath of Sabac established in 1957 is managed by a working committee of 47 members, elected from among 1,200 members. The Director of the Kominath is elected once in four years. There are 10 commissions (with 5 to 10 members) for managing specific functions relating to various operational aspects of this organisation. Financial assistance in the form of loans from the Government Agricultural Bank is extended to this organisation. 70% of the profits of the organisation are re-invested and 30% distributed among its members.

There is an eleven member advisory committee consisting of specialists in different fields of agriculture for formulating the operational plan of production and guiding its implementation process.

The organisation owns 5,000 hectares of land, 25,000 cattles, 1,000 pigs and a processing plant for the preservation of fruits, vegetables, meat and diary products as well as a cold-storage with a capacity of

2,500 tonnes. It was understood that their annual production of processed fruits and vegetables averages at 20,000 tonnes of tomatoes, 1,000 tonnes of beans and 6,000 tonnes of other vegetables per annum. Re-constituted juices including lemon, orange, peach and apple are also manufactured to the extent of 60 million bottles a year, the plant capacity being 60% for juices and 40% for preserved vegetables. The processing unit has the following lines of production:

Tomato concentrates unit
Juice concentrates unit
Cherry, peas and beans lines
Bottle line
Cold Storage for freezing at 40°

It was also indicated that approximately 50% of the total production of this unit is exported, the remaining being marketed locally.

Import Policy and Regulations

There are no special restrictions on the imports of processed as well as fresh fruits and vegetables entering the Yugoslav market. However, tariff duties are imposed on the import of these items which appear at Annexure 7(k) of Volume V. It may be indicated that the Government of Yugoslavia as a matter of principle encourages imports from such countries with which it enjoys favourable balance of trade. Trade is mostly negotiated on the basis of bilateral agreements.

HALBA
TRIPOLI
ZAGHARTA
AL HARMAL
AMYUN
AL BATRUN
BAJHARRI
MEDITERRANEAN SEA
GHAZIR
BAALBEK
BEIRUT
BAABDA
ALAYH
ZAHLE
BAYT AD DIN
SYRIA
SAIDA
DJEZZINE
RASHAYYA
MARJ' UYUN
TYRE
METULLA
ISRAEL

## 5.13 LEBANON

### Background

Being endowed with a remarkable range of climates, Lebanon grows different varieties of fruits including decidous, mediterranean as well as sub-tropical. Lebanon is a large strip of eastern mediterranean coast covered on the east by mountains, the liban and the arid anti liban range. The valley between these two ranges of mountains is known as Elbakaa which is considered to be one of the highly fertile valleys in the whole of West Asia, growing numerous varieties of fruits including citrus, apples, grapes, olives and bananas, and vegetables. The Net National Product has been estimated at LL 2.03 billion ($ 636.80 million) in 1964, contribution of agricultural sector being of the order of LL 360 million ($ 112.50 million) representing 18% of the total.

Total population currently reckoned at 2.45 million is expected to rise to 2.70 million by 1975. Population being small, the domestic market does not constitute any significant outlet for the horticultural produce of the country which has been showing a steady rise over the past few years.

### A. Fresh Fruits and Vegetables

### Market Size

A major proportion of the horticultural produce is directed to overseas destinations in view of the small size of the Lebanese market. During 1964-66, total

consumption of fresh fruits and vegetables averaged 460,000 tonnes as against the total production of 732,000 tonnes, the remaining having been exported. Per capita consumption works out to 187 kg, comprising 124 kg of fresh fruits and 63 kg of fresh vegetables. The table given below indicates the average consumption of fresh fruits and vegetables in Lebanon over 1964-66:

Apparent Consumption of Fresh Fruits and Vegetables in Lebanon (1964-66 - average) 1/

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 506 | - | 226 | - |
| Imports | 5 | - | 20 | - |
| Exports | 203 | 14 | 94 | 7 |
| Apparent Consumption | 308 | - | 152 | - |
| Per Capita Consumption (kg) | 124 | - | 63 | - |

Area Under Cultivation. Of the total crop area of 244,595 hectares in 1965, horticultural crops were grown on 95,979 hectares. Grapes, apples, citrus, olives and tomatoes cover the major proportion of land under horticultural crops. Following table presents the area

1/ Ministry of Agriculture, Republic of Lebanon, Beirut

under cultivation of various fruit and vegetable crops in 1965:

Area Under Horticultural Cultivation in Lebanon 2/

| | Area (Hectares) |
|---|---|
| **Fruits** | |
| Citrus | |
| Orange | 8,550 |
| Lemons | 2,500 |
| Others | 1,250 |
| Olives | 15,965 |
| Grapes | 14,664 |
| Apples | 10,960 |
| Bananas | 2,542 |
| Figs | 1,900 |
| Apricots | 925 |
| Pears | 859 |
| Peaches | 551 |
| Cherries | 474 |
| Total (including others) | 64,333 |

Contd....

2/ Outlook for Production and Trade of Selected Horticultural Products in Mediterranean Countries, Report on Lebanon, FAO, Rome

| | Area (Hectares) |
|---|---|
| **Vegetables** | |
| Potatoes | 6,207 |
| Tomatoes | 4,633 |
| Cucumbers | 3,232 |
| Watermelons | 2,677 |
| Onions | 2,610 |
| Aubergines | 1,715 |
| Cabbage & Cauliflower | 1,494 |
| Broadbeans (Green) | 1,364 |
| Carrots | 1,200 |
| Beans | 1,018 |
| Garlic | 316 |
| Total (including others) | 31,646 |

It would be apparent from the above that among fruits, olives and grapes are the most important, having accounted for 23% and 22% respectively of the total fruit area followed by citrus and apples. Area under cultivation of temperate fruits is not very substantial presently though efforts aimed at expansion of these crops are under way and indications suggest that Lebanese production of temperate fruits will multiply manifold in the years to come.

Fresh Fruits. Fruit production in Lebanon has been upward since 1950, total production in 1966 being 541,000 tonnes as against approximately 500,000 tonnes in 1964. Principal fruit crops include oranges and tangerines,

apples, lemons, grapes, bananas and apricots, citrus being the most important with a total production of 249,940 tonnes in 1966. The following table presents the production data of major fruit crops in Lebanon over 1964-66:

Production of Fruit Crops in Lebanon[3/]

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Citrus | | | |
| Oranges & Tangerines | 145 | 152 | 164 |
| Lemons | 64 | 63 | 69 |
| Grapefruits | 16 | 17 | 17 |
| Apples | 125 | 115 | 104 |
| Grapes | 100 | 84 | 76 |
| Bananas | 22 | 25 | 30 |
| Pears | 14 | 5 | 5 |
| Apricots | 12 | 11 | 11 |
| Cherries | 7 | 7 | 4 |
| Total (including others) | 545 | 509 | 514 |

It would be seen from the above that citrus is the chief fruit crop accounting for 48% of the total production in 1966 followed by apples 20% and grapes 15%.

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3/ i) Ministry of Agriculture, Lebanon, Beirut
ii) Production Year Book, FAO, Rome, 1966

While the details of citrus cultivation in Lebanon appear at Volume I, salient features of production and exports of major fruit crops are discussed below:

Apples. Apple production in Lebanon has made rapid strides from about 15,000 tonnes in 1950 to 104,000 tonnes in 1966. The area devoted to apple cultivation rose from 2,492 hectares in 1950 to 10,960 hectares in 1966. Being an important export earner, expansion in apple cultivation is likely to continue in the future years. FAO has projected apple production to be of the order of 196,000 tonnes by 1970 and 234,000 tonnes by 1975.

Apples are mostly grown in the Lebanese mountains and Beqaa valley, both having contributed 70% and 20% of the annual crop respectively. Major varieties of apples grown in Lebanon comprise Golden Delicious and Starking Delicious (Red and Double Red) accounting on an average for 98% of the total production. The Starking Delicious variety is very popular in the neighbouring Arab markets and fetches higher price than Golden Delicious. The average yield per hectare of apple trees was reckoned at 16.2 tonnes during 1963-65 period, which is considered low. It is, however, expected to rise to 18 tonnes by 1975.

Following table indicates the exports and domestic consumption of apples over the period 1961-62 and 1961-62 and 1965-66:

(Next page)

Export and Domestic Consumption of Apples in Lebanon 4/

| | Exports | % of Production | Domestic Consumption | % of Production |
|---|---|---|---|---|
| 1961-62 | 45,026 | 53 | 39,974 | 47 |
| 1962-63 | 56,826 | 71 | 23,174 | 29 |
| 1963-64 | 53,236 | 71 | 21,746 | 29 |
| 1964-65 | 96,400 | 77 | 28,600 | 23 |
| 1965-66 | 87,178 | 76 | 27,902 | 24 |

It would be inferred from the above table that the significance of exports as an outlet of Lebanese apples has grown from 53% in 1961-62 to 76% in 1965-66. Domestic consumption being small, the proportion of production diverted to exports is projected to reach 84% by 1975.

Exports of apples amounted to 93,700 tonnes during 1966; Syria, Jordan, Saudi Arabia and Iraq constituted the major buyers for 80% of the total exports, followed by East Europe (7%). Small quantities of apples are also directed to West Europe and African countries but their share in the total exports was around 1%. Indications suggest that East Europe will become a more promising outlet for Lebanese apples in the future years owing to the intensive efforts being made by the Lebanese Fruit Office.

Table Grapes. Grapes constitute an important crop in Lebanon, total production having reached 76,000 tonnes in 1966 as against 100,000 tonnes in 1964. Total area under grape cultivation is reckoned at 14,000 hectares.

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4/ Republic of Lebanon, Ministry of Agriculture, Beirut

The Survey revealed that of the total production of grapes, approximately 55% is consumed as table grapes, 80% utilised for wine production, 3% processed as raisins, 3% for exports, and the remaining making up for the industrial production of grape juices and Araks'.

Numerous varieties of grapes are grown in Lebanon, important among them being Baitamouni, Soury and Toufaifihi. Grape crop is concentrated in Beqaa valley which accounts for about 70% of the total annual grape production in the country.

Exports of grapes have been negligible amounting to 2,538 tonnes in 1965 as against 1,279 tonnes in 1963, neighbouring Arab countries constitute the sole buyers. Lebanon itself is the market for Syrian grapes, aggregate imports during 1965 being 4,866 tonnes.

Bananas. Bananas, principally of Cavandish variety, are mostly gorwn in the coastal irrigated areas. Total area devoted to banana production during 1966 was 2,542 hectares with a total production of 30,000 tonnes. It is understood that while the area under cultivation has increased in the recent past, production did not keep pace with the exapnsion in area. This is attributable to the fact that bananas are inter-planted with citrus in young orchards and removed when citrus plants reach the bearing age.

Total exports of bananas in 1966 amounted to 11,900 tonnes, Arab countries having accounted for 9,500 tonnes.

Pears, Peaches and Apricots. Pears, peaches and apricots, though becoming more important in the Lebanese horticultural sector, are presently grown in limited quantities, total production in 1966 being 21,695 tonnes comprising 10,915 tonnes of apricots, 5,394 tonnes of peaches and 5,386 tonnes of pears. Total area given over the deciduous fruits was 2,335 hectares in 1966 which was in fact a decline from 3,600 hectares in 1955. Apricots constitute the major deciduous fruit grown currently in Lebanon, Corcia being the principal variety followed by Williams, Red Williams and Passe Carassany. Major varieties of peaches include Elberta Giant, J.H. Hale, Red Haven, Red Bird and Dixie. Following table gives an idea about the production and area of cultivation under peaches, pears and apricots in Lebanon over the period 1961-65:

Production of and Area Under Deciduous Fruits in Lebanon 5/

| | Pears | | Peaches | | Apricots | |
|---|---|---|---|---|---|---|
| | Tonnes | Hectares | Tonnes | Hectares | Tonnes | Hectares |
| 1961 | 9,000 | 1,900 | 10,000 | 1,950 | 6,000 | 900 |
| 1962 | 4,500 | 2,000 | 8,000 | 1,950 | 4,000 | 900 |
| 1963 | 4,000 | 1,500 | 8,000 | 1,500 | 5,000 | 950 |
| 1964 | 14,000 | 1,085 | 11,000 | 560 | 12,500 | 1,030 |
| 1965 | 5,100 | 850 | 9,500 | 510 | 10,600 | 945 |

5/ Commodities Division, FAO, Rome

Deciduous fruits are mostly used for marketing as fresh produce. Very small quantities of deciduous fruits are exported; 4,010 tonnes in 1965 found their way to the neighbouring Arab countries.

Fresh Vegetables. In respect of vegetables where Lebanon holds a prominent position in the West Asian region, potatoes, onions, tomatoes, cabbages and cauliflowers constitute the more important crops. While detailed statistics on the production of different varieties of vegetables are not available, the following table would give an idea of the total vegetable production in Lebanon:

Production of Vegetables in Lebanon 6/

(Thousand Tonnes)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Potatoes | 80 | 54 | 79 |
| Tomatoes | 42 | 45 | 54 |
| Onions | 24 | 26 | 32 |
| Cabbages and Cauliflowers | 22 | 22 | 21 |
| Olives | NA | NA | 30 |
| Aubergines | 12 | NA | 25 |

(Contd. next page)

6/ Commodities Division, FAO, Rome

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Cucumbers | NA | NA | 21 |
| Carrots | NA | NA | 12 |
| Total (including others) | 363 | 371 | 354 |

Besides the above vegetables, sizable quantities of beans, carrots, and watermelons are grown in the country. The Survey revealed that the production of potatoes is mainly concentrated in the Beqaa Valley and Akkar plains. Potatoes are harvested twice a year, in March and July. Production of onions has declined from 45,000 tonnes in 1955 to 32,000 tonnes in 1966 mainly because of the growing trend towards substitution of onions by more profitable crops.

The Lebanese vegetables are mostly grown for domestic consumption with the exception of tomatoes, potatoes and onionswhich have been finding increasing export markets abroad. Following table indicates the volume of exports of these items over the period 1962-65:

Exports of Fresh Vegetables in Lebanon 7/

| | Tomatoes | Potatoes | Onions | Others (1) |
|---|---|---|---|---|
| 1962 | 7,700 | 23,433 | 12,296 | (2) 3,328 |
| 1963 | 13,506 | 30,754 | 6,938 | (2) 5,024 |
| 1964 | 4,877 | 20,102 | 1,366 | (2) 2,996 |
| 1965 | 3,701 | 26,644 | 5,480 | (2) - |

(1) The most important for exports are: cauliflowers, cucumbers, lettuces, carrots.

(2) Including shallots, garlics and leeks.

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7/ Statistiques du Commerce Exterieur, Government of Lebanon, Beirut

It would be seen from the above that potatoes represent the most important vegetable currently exported from Lebanon, total exports having risen from 10,912 tonnes in 1958 to 26,644 tonnes in 1965 and 28,742 tonnes in 1966. Onions exports, however, have been declining owing to the falling domestic production; exports have gone down from 21,637 tonnes in 1958 to 12,039 tonnes in 1966. Other vegetables which are important from the export point of view include cauliflowers, cucumbers, lettuce and carrots, though the quantities exported have not so far been sizable.

Exports of vegetables are mainly directed to Arab neighbours; small quantities are, however, going to UK, Belgium and African countries comprising Kenya, Somalia and Libya.

Organisation

With a view to organising the export trade of Labanese fruits and vegetables in a systematic manner, the Government of Lebanon has set up a Lebanese Fruit Office (Office Fruitier Libanais) by a legislative decree of 25th March 1959. The principal function of this office is to organise, control and develop the exports of Lebanese fruit, so as to make it a viable export industry. Following are some of the functions of this organisation.

i. Procurement of suitable varieties and qualities of fruit for export purposes by way of evolving and imposing standards and grades for quality, assorting, packing, loading and shipment of fruits.

ii. Establishment of standard packing stations for facilitating better grading and packing of fruits meant for export markets.

iii. Collection, publication and analysis of statistics on horticultural products and trade of Lebanon.

iv. Organising sales promotion for Lebanese fruits in overseas markets.

v. Undertaking negotiations with the shipping companies and importers abroad for supply contracts.

vi. Making necessary proposals for the organization of the fruit business and more particularly in respect of commercial agreements and custom duties.

In addition to the above functions, the Lebanese Fruit Office formulates export policies, fixes minimum prices by agreement with the growers as well as the governments of the importing countries so as to eliminate inter-se competition among Lebanese exporters. All the quantities intended for exports are subject to a compulsory control by the Fruit Office and no export shipments are allowed to be despatched unless the exportworthiness of the goods is certified by the office.

The Fruit Office also contacts the foreign importers on behalf of the local producers and exporters and provides necessary securities so as to eliminate any risk faced by the exporters in respect of their shipments.

The Office consists of the following:

The Board of Directors
The Technical Committees
Executive Personnel

Board of Directors. Board of Directors comprises ten citrus and apple producers including two representatives of the agricultural cooperative societies and a minimum of two agricultural engineers, two producers of other fruits, four agricultural engineers nominated by the Ministry of Agriculture and a representative of the Ministry of Economy.

Technical Committee. There is a technical committee for each variety of fruit covered by the scope and authority of the office. It comprises employee and non-employee board members representing different kinds of fruits. The committee studies and examines matters relating to the individual fruits for submission of necessary proposals to the Board of Directors.

Executive Personnel. The executive work of the fruit office is controlled by a Manager who is appointed by a decree of the Council of Ministers following a resolution of the Board and the proposal of the Minister of Agriculture.

The revenue of the fruit office is derived from a fee levied on the exports of fruits and vegetables, being limited to a maximum of 150 Lebanese Piastres on each tonne of bulk impacked fruit and one Lebanese piastre per gross kg of exported fruit. The board also imposes custom duty on wooden/cardboard cases imported for the packing of fruits in the country. Besides, financial assistance is given by the government for the regular expenditure of the office.

Imports. In view of the large production-base that exists for horticulture in Lebanon and the limited domestic market it offers, imports have not been significant,

having averaged 25,000 tonnes over 1964-66. Major items of interest include onions, tomatoes, potatoes, cucumbers and beans. It was also understood that most of these vegetables, which are grown in sizable quantities in Lebanon, are imported mainly for meeting the off-season requirements. Lebanon is basically a net exporter of horticultural produce; the prospects for increasing imports are therefore dim. The Survey, however, revealed that fresh mangoes could be exported in reasonable quantities to Lebanon if air-lifted and offered at $ 0.75 per kg cif Beirut. A number of importers showed interest in importing mangoes from India. This needs to be pursued.

Import Policy and Regulations

There are generally no restrictions on imports of fruits and vegetables. However, imports of certain items like tomatoes are allowed only during the local off-season. Most of the imports are subject to a duty of 36% ad valorem (Volume V, Chapter VII(i)).

## B. Processed Fruits and Vegetables

Market Size

Total production of processed fruits and vegetables, as estimated on the basis of the Survey, is currently around 30,000 tonnes, of which about 20% is exported. Imports being not significant, domestic consumption may be placed at 24,000 tonnes or 11 kg per capita.

Production. Bulk of the estimated production of 30,000 tonnes is accounted for by six canners.+ Citrus juices, tomato juice and tomato concentrates represent the major items of production. Besides, pineapple juice concentrate is imported for purposes of reconstitution. Fresh fruits and vegetables are procured for processing, partly through contract with growers and partly through purchases from the open market. Cranges and lemons are available at $ 0.04 to $ 0.06 per kg and tomatoes at $ 0.02 to $ 0.03 per kg.

Exports. The neighbouring Arab countries, particularly Saudi Arabia, provide the major market for exports of Lebanon, which enjoys substantial tariff preferences in these countries. East Europe represents another outlet of importance. The Government offers incentives for promotion of exports, including that of supplying sugar at $ 0.09 per kg for export purposes, as against the normal price of $ 0.20 per kg.

## Import Policy and Regulations

Imports are regulated through fairly high tariffs, amounting to a minimum of 36% ad valorem in many cases. There are no special restrictions as such on imports. Details of custom duties applicable to processed items appear at Volume V, Chapter VII(i) of the Report.

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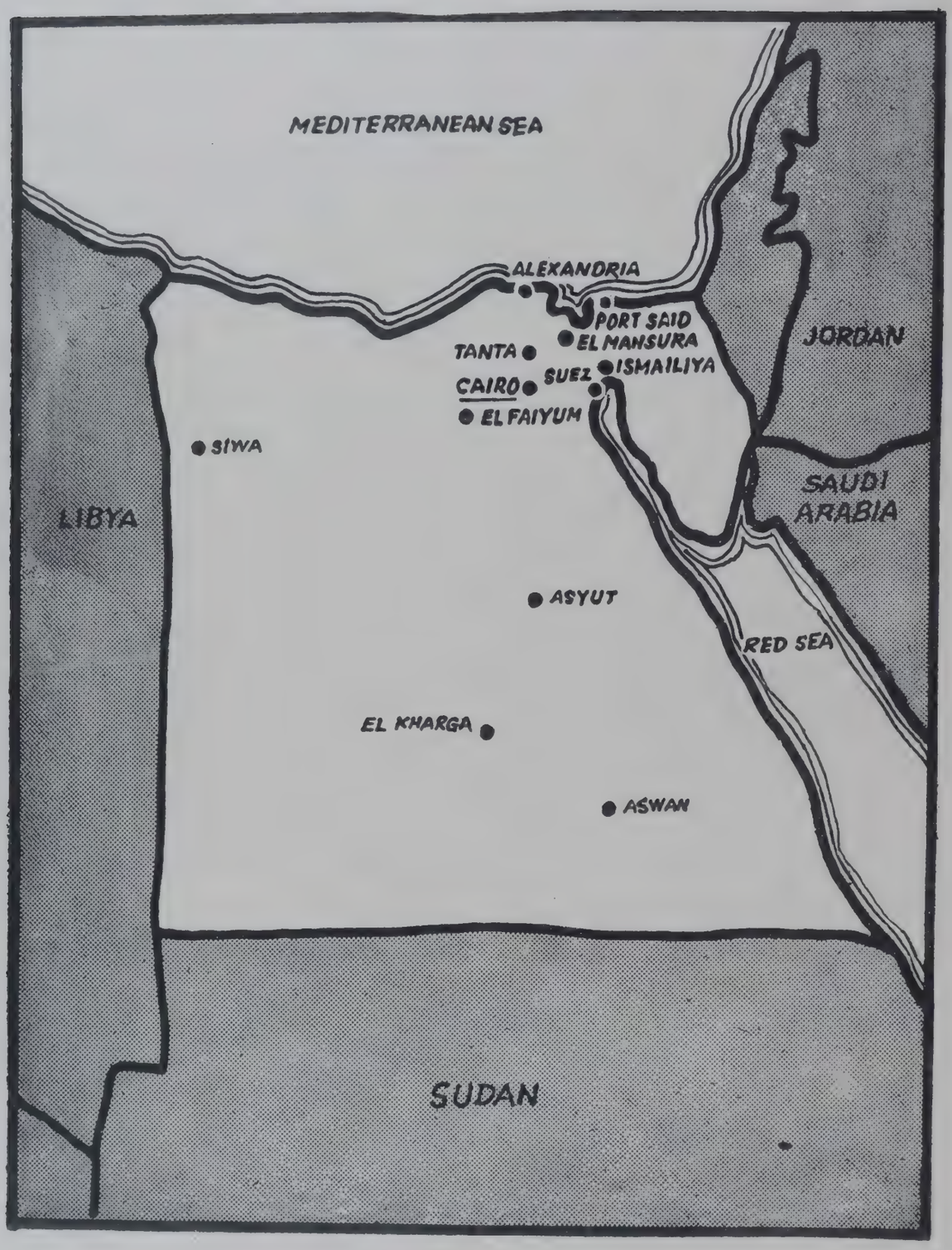
+ These comprise Cortas Canning & Refrigerating Co. Sal; Jammal George; La Frnta Canning Co.; Lebanon Fruit Juice Co. Sal; URA (Utilisation Rationnele d' Agrummes); and Societe Libanaise Des Conserves Mondernes, Beirut.


MEDITERRANEAN SEA
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TANTA
CAIRO
EL FAIYUM
SIWA
JORDAN
SAUDI ARABIA
LIBYA
ASYUT
RED SEA
EL KHARGA
ASWAN
SUDAN

## 5.14 UNITED ARAB REPUBLIC

### Background

The United Arab Republic is basically an agricultural country, cotton representing the main cash crop. Cotton accounts for over half of the country's export earnings. The Suez Canal is another major source of foreign exchange, toll revenues having amounted to $ 217 million during 1966. Several major oil fields have been discovered during recent years. Apart from cotton textiles and oil refining, cement and fertilizers are major industries. National income in 1965 has been estimated at $ 4.0 billion and population at 30 million.

Although the land area is vast, one million sq. kms, 96% of it is desert; land under cultivation is limited to 25,000 sq. kms, irrigated mostly by the Nile waters, which have been successfully harnessed. A large number of fruits and vegetables are grown in the country in adequate quantities, and there is a fairly well established processing industry. UAR is a leading exporter of onions, both fresh and processed, to world markets.

### A. Fresh Fruits and Vegetables

### Market Size

UAR is by and large self-sufficient in fruits and vegetables. While imports are limited mainly to seed potatoes and dried haricot beans, UAR is a leading supplier of onions to world markets. Per capita consumption has been estimated at 175 kg comprising 70 kg of fruits and 105 kg of vegetables, as shown below:

Apparent Consumption of Fresh Fruits and Vegetables 1/

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 2,126 | - | 3,391 | - |
| Imports | - | - | 19 | 1.9 |
| Exports | 15 | 1.8 | 263 | 20.0 |
| Apparent Consumption | 2,111 | - | 3,147 | - |
| Per Capita Consumption (kg) | 70 | | 105 | |

Production. Total production of fresh fruits and vegetables averaged 6.5 million tonnes during 1965-66, comprising 2.1 million tonnes of fruits and 3.4 million tonnes of vegetables. Water melons account for half of the fruit production. Next in importance are citrus fruits. Other major fruits include sweet melons, grapes, mangoes, bananas and guavas. Production of temperate fruits like pears and peaches is very limited. Tomato claimsthe largest share in the production of vegetables, having accounted for 39% during 1965-66. Onions, which represent the second largest item, are highly significant from the export point of view. Potatoes, cabbages and aubergines are other major vegetables produced. A wide range of vegetables are produced in relatively smaller quantities, including okra, cauliflowers, beans, artichokes, lettuce and spinach. Break-up of production during 1965-66 is shown below:

(Next page)

1/a) Year Book 1967, Federation of Industries in the United Arab Republic, Cairo

b) Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report.

Production of Fresh Fruits and Vegetables 2/

(Thousand Tonnes)

| | 1965 | 1966 |
|---|---|---|
| Fruits | 2,039 | 2,213 |
| Water Melons | 976 | 1,133 |
| Sweet Melons | 243 | 230 |
| Oranges | 340 | 348 |
| Tangerines | 59 | 61 |
| Lemons | 83 | 85 |
| Mangoes | 78 | 88 |
| Bananas | 64 | 68 |
| Guavas | 34 | 34 |
| Grapes | 90 | 90 |
| Others | 72 | 76 |
| Vegetables | 3,336 | 3,446 |
| Tomatoes | 1,242 | 1,366 |
| Onions | 675 | 691 |
| Potatoes | 441 | 324 |
| Cabbages | 242 | 244 |
| Aubergines | 177 | 196 |
| Okra | 61 | 63 |
| Cauliflowers | 59 | 62 |
| Beans (all types) | 53 | 56 |
| Green Peas | 26 | 32 |
| Artichokes | 16 | 16 |
| Spinach | 30 | 30 |
| Lettuce | 44 | 48 |
| Others | 270 | 318 |
| Total | 5,375 | 5,659 |

2/ a) Year Book 1967, Op. cit.
b) Production Year Book, FAO, 1966.

Imports. Imports are limited mainly to seed potatoes and dried haricot and horse beans. Imports of seed potatoes increased substantially from 12,600 tonnes valued at $ 1.0 million in 1964 to 21,300 tonnes valued at $ 2.1 million in 1966. Imports of dried haricot and horse beans increased from 2,100 tonnes ($ 335,000) to 2,900 tonnes ( $ 509,000) between the two years.

Exports. Onions represent by far the largest item of exports, having accounted for 57% of the total value during 1965-66. Next in importance is potatoes, exports of which registered an impressive rise from 44,000 tonnes valued at $ 2.7 million in 1965 to 77,000 tonnes worth $ 5.7 million in 1966, representing 27% of total in the latter year. Oranges and melons represent major items among the fruits exported. The share of fruits in the total exports, however, is limited, averaging 8% during 1965-66. Total exports of fresh fruits and vegetables declined from 281,000 tonnes valued at $ 20.8 million in 1965 and 244,000 tonnes worth $ 19.1 million, reflecting largely reduced exports of onions (Volume III, Table A-3.14, of the Report).

Foreign trade of UAR is mostly nationalised; even the isolated sectors left for private enterprise come under the strict control of the Government. The Government draws up a plan of exports every year, specifying in particular the volume of exports to be effected to trade agreement countries. Bulk of the exports of fresh fruits and vegetables are undertaken by the two State-owned organisations, El Wadi Company and Nile Company. These companies have their own packing houses, equipped on modern lines, in the midst of growing areas.

## B. Processed Fruits and Vegetables

### Market Size

Production of processed fruits and vegetables is very limited, being of the order of 16,000 tonnes, a considerable proportion of which is exported. Imports being negligible, consumption is very low, at about 0.5 kg per capita.

Apparent Consumption of Processed Fruits and Vegetables 3/
(1965-66 - average)

Quanity: Thousand Tonnes
Value : Million Dollars

| | Quantity | Value |
|---|---|---|
| Production (Est.) | 20 | - |
| Imports | 1 | 0.4 |
| Exports | 7 | 3.2 |
| Apparent Consumption | 14 | - |
| Per Capita Consumption (kg) | 0.5 | - |

Production. Dehydration is the major sector of the processing industry in UAR. Besides onions, which account for the bulk of output, potatoes, green beans and carrots are some of the important vegetables taken up for dehydration. Virtually the entire output of dehydrated onions is meant for exports. There are two large units engaged in the production of dehydrated products, the Alexandria Dehydration Company, Alexandria and the Nasr Dehydration Company, Sohag, which are situated in centres of concentrated onion production.

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3/ Year Book 1967, Op. cit.

A detailed review of the dehydrated onions industry in UAR has been given in Chapter 4.9.

Bulk of the production of canned fruits and vegetables, fruit and vegetable juices, etc. is accounted for by the two State-run organisations, Al Nasr for Canned Food Company and the Edfina Company. The former has three factories, on each in Cairo, Alexandria and Tehrir, while the Edfina factory is located in Alexandria. Canned vegetables represents a major sector of the industry, production having amounted to 7,400 tonnes in 1966. Bulk of the output, however, is consumed locally. While the range of production is wide, major items are horse beans, peas and okra. Among fruit juices, mango is by far the most important, other juices including orange, grapefruit and guava. Total output of fruit juices is currently of the order of 5,000 tonnes. Production of canned tomato sauce amounted to 1,450 tonnes in 1966. Canning of fruits is very limited, production having amounted to mere 150 tonnes in 1966; mango is the most important among canned fruits, which include peaches, pears, grapefruit sections, orange segments and strawberries.

The most popular pack for canned fruits and vegetables is 350 gm. Juices are packed mostly in 6-oz (170 gm) cans, but to a limited extent in 350 gm cans also. The most common size for jams is 450 gm. Cartons are used for outer packing, which

are available at reasonable prices of $ 0.20 a piece (for holding 24x350 gm cans).

Imports. Imports of processed fruits are negligible. Imports of processed vegetable products declined from 1,721 tonnes valued at $ 481,000 in 1965 to 874 tonnes valued at $ 267,000 in 1966.

Exports. Exports of processed fruits and vegetables averaged 7,000 tonnes worth $ 3.2 million during 1965-66. Dehydrated onions represent the largest item of exports, accounting for 76% of the total value during 1965-66. The other item of importance is mango nectar, exported mainly to Kuwait and other Gulf states. Exports of fruit juices (mostly nectars) recorded a substantial rise from 1,205 tonnes valued at $ 465,000 in 1965 to 1,681 tonnes valued at $ 627,000 in 1966. About 300-400 tonnes of canned vegetables are exported, mainly to the Arab countries but partly to UK and other West European markets also.

Efforts are being made to develop production of frozen fruit juices for which a ready market exists in the West European countries. Frozen mango juice is already being packed in limited quantities for the domestic market, but the objective is to develop production for the export markets.

## Import Regulations

Foreign trade in UAR is strictly under Government control, and most of the imports are covered under trade agreements. Imports are of fruits and vegetables are in

any case insignificant outside seed potatoes, which seem to offer some limited prospects for India, provided the production base in the country is sufficiently developed.

U.S.S.R
TURKEY
IRAN
ZAKHO
MOSUL
SYRIA
AS SULAYMANIYAH
KIRKUK
MANDALI
RAMADI
BAGHDAD
KARBALA
HILLA
AN NAJAF
DIWANIYA
AMARA
SAMAWA
NASIRYA
BASRA
SAUDI ARABIA

## 5.15 IRAQ

### Background

The economy of Iraq is based mainly on oil revenues, which have swelled considerably during recent years. The national income of Iraq currently amounts to about $ 1.5 billion. Population in 1966 has been estimated at 8.3 million.

Dates represent the principal agricultural crop. While a large number of fruits and vegetables are grown in the country, Iraq depends heavily on imports to meet its requirements of apples, bananas, tomatoes, potatoes, etc. But in view of the high import tariffs, trade is largely confined to other Arab countries, which enjoy substantial tariff preferences in Iraq.

### A. Fresh Fruits and Vegetables

### Market Size

Consumption of fresh fruits and vegetables may be placed at 477,000 tonnes or 57 kg per capita, comprising 15 kg of fruits[1] and 42 kg of vegetables on the following basis:

Apparent Consumption of Fresh Fruits and Vegetables[2]
(1965-66 - average)

Quantity: Thousand Tonnes
Value : Thousand Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production (Est.) | 100 | - | 260 | - |
| Imports | 32 | 3.6 | 91 | 6.1 |
| Exports | 6 | 0.2 | - | - |

(Contd. next page)

1/ Excluding Dates
2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report.

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Apparent consumption | 126 | - | 351 | - |
| Per Capita Consumption (kg) | 15 | - | 42 | |

Production. Total production in Iraq has been estimated at 360 tonnes, comprising 100 tonnes of fruits and 260 tonnes of vegetables. Pomegranates, water melons, oranges, tomatoes and onions are important among fruits and vegetables produced in Iraq (Volume III, Table A-1.15). But local production falls short of demand, particularly in respect of tomatoes and apples, which are imported in large quantities from the neighbouring countries. A sizeable export trade has been built up with Kuwait in water melons.

Imports. Imports of fresh fruits and vegetables averaged 121,300 tonnes valued at $ 9.6 million during 1964-66. Tomatoes represent the largest item of imports, accounting for 37% of the total imports in terms of quantity and 22% in terms of value, during the above period. Apples are equally important from the value point of view, although their share in terms of quantity is considerably less at 20%. Potatoes and bananas are other major items of imports, accounting for a further 21% of the total value of imports. Composition of imports during 1964-66 was as follows:

(Next page)

## Imports of Fresh Fruits and Vegetables 3/

Quantity: Thousand Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Bananas | 6.1 | 647 | 5.4 | 605 | 6.6 | 725 |
| Apples | 23.2 | 2,164 | 25.7 | 2,251 | 22.7 | 1,999 |
| Dried Limes | 0.6 | 361 | 0.5 | 392 | 0.5 | 406 |
| Dried Grapes | 1.4 | 174 | 1.2 | 266 | 1.4 | 308 |
| Other Fruits | 4.9 | 431 | - | 3 | 0.4 | 106 |
| Tomatoes | 42.5 | 2,047 | 30.0 | 1,408 | 62.5 | 2,822 |
| Seed Onions | 1.8 | 179 | 2.4 | 258 | 2.5 | 269 |
| Potatoes | 20.5 | 1,182 | 24.3 | 1,372 | 26.2 | 1,440 |
| Dried Haricot and Horse Beans | 4.7 | 806 | 6.2 | 888 | 5.6 | 1,022 |
| Dried Peas | 7.8 | 1,215 | 9.5 | 1,350 | 7.4 | 1,159 |
| Other Vegetables | 4.3 | 241 | 2.3 | 120 | 2.7 | 135 |
| Total | 117.8 | 9,447 | 107.5 | 8,913 | 138.5 | 10,391 |

Lebanon and Jordan are the largest suppliers of fresh fruits and vegetables to Iraq, accounting for 37% and 25% respectively of the total value of imports during 1964-66. Lebanon accounts for the entire imports of apples and 70% of the imports of bananas, in addition to meeting the major part of the requirements of vegetables. Likewise, virtually the entire supplies of tomatoes come from Jordan, which additionally accounts for 29% of the imports of bananas.

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3/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report

Other suppliers include Iran, UAR, Syria and Poland. Shares of major suppliers in respect of selected fruits and vegetables are shown below:

Shares of Major Suppliers in Imports (Value)[4/]

(Percentages)

| | Apples | Bananas | Tomatoes | Potatoes |
|---|---|---|---|---|
| Lebanon | 100 | 70 | - | 16 |
| Jordan | - | 29 | 99 | 2 |
| Iran | - | - | - | 35 |
| UAR | - | - | - | 12 |
| Poland | - | - | - | 19 |
| Others | - | 1 | 1 | 16 |
| Total | 100 | 100 | 100 | 100 |

Exports. Exports of fresh fruits and vegetables comprise almost exclusively water melons and sweet melons, shipped entirely to Kuwait. Exports recorded a steep rise from 1,278 tonnes valued at $ 39,000 in 1964 to 8,645 tonnes worth $ 227,000 in 1966. The figures for 1966 include 90 tonnes of pomegranates and 5 tonnes of grapes, each contributing $ 8,000.

Import Regulations

Imports are strictly regulated through a rigid system of licensing and high import tariffs (Volume V, Chapter VII(m)). Substantial concessions, however, are

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4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report

allowed on imports from other Arab countries, the tariffs being nil in the case of UAR and Jordan. Imports of certain items like oranges is banned, although considerable quantities are reportedly smuggled from Lebanon.

## B. Processed Fruits and Vegetables

### Market Size

There is a limited production of processed fruits and vegetables locally, and the Government is keen on developing the processing industry. However, bulk of the requirements continue to be met through imports.

Production. The State-owned Food Canning Administration is the largest unit in the country. Current production of this unit is mainly confined to jams and canned vegetables like peas, beans and okra; efforts are, however, being made to diversify the range of production. There is a fairly large number of units operating on a small scale, whose output is not considerable. Besides, there are re-packers, who work with foreign exporters on a franchise basis. With a view to protecting the interests of the local processing industry, the Iraqi Government is following a highly restrictive policy in regard to imports of processed fruits and vegetables.

Imports. Imports of processed fruits and vegetables increased from 10,400 tonnes valued at $ 2.5 million in 1964 to 13,800 tonnes valued at $ 3.3 million in 1966. This apparently belies the restrictive policy the Government has been following. But it must be noted

that this increase only reflects the rise in the imports of tomato puree, which is by far the largest item of imports, accounting for 90% of the total value in 1966. These imports are covered under trade agreements with Bulgaria and Italy. Imports of other items like jams and canned vegetables registered a marked decline during recent years, as may be seen from the following table:

Imports of Processed Fruits and Vegetables 5/

Quantity: Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Tomatoes and Tomato puree | 7,747 | 1,770 | 10,952 | 2,817 | 12,566 | 2,988 |
| Other Vegetables products | 1,062 | 286 | 464 | 123 | 663 | 157 |
| Jams, Jellies, etc. | 1,059 | 260 | 438 | 140 | 108 | 36 |
| Fruit and Vegetable Juices | 433 | 117 | 270 | 82 | 392 | 84 |
| Other Fruit Products | 104 | 39 | 65 | 22 | 24 | 11 |
| Total | 10,405 | 2,472 | 12,189 | 3,184 | 13,753 | 3,276 |

Bulgaria claims the largest share in the imports, 58% of the total value during 1964-66. Italy accounted for 9% of the imports during the same period. India, which is a major supplier of pickles and chutneys to Iraq, accounted for 4% of the total imports during 1964-66, but its stakes

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5/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, of the Report

in the market are likely to be seriously affected in view of the restrictive import policy of Iraq. Other suppliers include Australia, UAR, UK and USA.

Exports. There are hardly any exports of processed fruits and vegetables from Iraq, but for some limited shipments of date juice, mainly to Syria, West Germany and Lebanon. Exports averaged 2,291 tonnes valued at $ 1.3 million during 1964-66 (Volume IV, Table B-3.14, of the Report). But once the local processing industry is sufficiently developed, Iraq will be in a position to build up an appreciable export trade with the neighbouring Arab countries.

Import Regulations

Imports are subject to rigid licensing restrictions and high tariffs (Volume V, Chapter VII(m)). Prospects for India are limited. Even in respect of pickles and chutneys, of which India is an established supplier to Iraq, India's interests seem to be in jeopardy, with the recent restrictions on imports.

## 5.16 KUWAIT

### Background

The oil-rich Sheikdom of Kuwait, which has a limited population of about 500,000, is the most affluent country in the world with per capita income of over $ 3,000. Kuwait scarcely grows any fruits or vegetables, and there is no processing in the country; all the requirements are met from imports. Although the size of the population is small, the market offered by Kuwait is considerable because of the high purchasing power of the people.

### A. Fresh Fruits and Vegetables

### Market Size

Imports represent consumption as re-export trade in these items is negligible. Imports of fresh fruits vegetables into Kuwait increased from 94,518 tonnes valued at $ 7.9 million in 1965 to 108,155 tonnes valued at $ 9.3 million in 1966. This increase is reflected in almost all major fruits and vegetables, but is most conspicuous in the case of melons and water melons, imports of which rose from 13,920 tonnes ( $ 650,000) to 19,237 tonnes ( $ 1.1 million) between the two years. Composition of imports during 1965 and 1966 was as follows: (see Volume III, Table A-2.16 for details):

IRAN
IRAQ
MUTLA
KUWAIT TOWN
MENA AL AHMADI
PERSIAN GULF
NEUTRAL ZONE
NEUTRAL ZONE (SAUDI ARABIA AND KUWAIT)
SAUDI ARABIA

Imports of Fresh Fruits and Vegetables in Kuwait 1/

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity (Tonnes) | Value (Thousand Dollars) | Quantity (Tonnes) | Value (Thousand Dollars) |
| Citrus fruits | 13,143 | 1,257 | 16,458 | 1,961 |
| Bananas | 6,549 | 694 | 8,369 | 902 |
| Apples | 5,422 | 577 | 8,131 | 1,070 |
| Melons and water melons | 13,920 | 650 | 19,237 | 1,137 |
| Other fresh fruits | 6,215 | 736 | 5,058 | 739 |
| Potatoes | 5,955 | 356 | 6,900 | 456 |
| Onions and garlic | 11,518 | 734 | 10,625 | 641 |
| Tomatoes | 6,656 | 426 | 11,134 | 652 |
| Other fresh vegetables | 25,140 | 2,500 | 22,234 | 1,826 |
| Total | 94,518 | 7,930 | 108,155 | 9,324 |

Lebanon is the largest supplier of fresh fruits and vegetables to Kuwait, accounting for 36% of the average total imports during 1965 and 1966, in terms of value. Other major suppliers are Jordan (18%), Iran (12%), India (10%) and Syria (8%). Imports from Lebanon comprise mainly citrus and apples; in fact Lebanon claims a share of as much as 80% and 91% respectively in the total imports of these fruits. In addition, Lebanon is a major supplier of various other fruits and vegetables, particularly potatoes among the latter. Jordan is the largest supplier to Kuwait of tomatoes and various other vegetables, accounting for 27% of the total imports of vegetables. Iran is another

1/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, Table A-2.16, of the Report.

important supplier of vegetables, accounting for 53% of onions and 19% of other vegetables. India's stakes are largest in bananas where it holds a share of 61% of the market; besides, India accounts for 23% of Kuwait's imports of onions. Average share of major suppliers in respect of different fruits and Vegetables may be seen from the following table.

Shares of Major Suppliers in Imports
(1965-66 Average: Value Besis)

(Percentages)

| | Lebanon | Jordan | Iran | India | Syria | Other countries | Total |
|---|---|---|---|---|---|---|---|
| Citrus | 80 | 11 | - | 2 | - | 7 | 100 |
| Bananas | 18 | 2 | - | 61 | - | 19 | 100 |
| Apples | 91 | - | 1 | - | 1 | 7 | 100 |
| Melons and water melons | 1 | 26 | 3 | - | 18 | 52 | 100 |
| Other fruits | 45 | 10 | 8 | 18 | 6 | 13 | 100 |
| Potatoes | 38 | 10 | 10 | - | 3 | 39 | 100 |
| Onions and garlic | 8 | 1 | 53 | 23 | 10 | 5 | 100 |
| Tomatoes | 3 | 87 | 6 | - | 3 | 1 | 100 |
| Other vegetables | 23 | 24 | 24 | 3 | 17 | 9 | 100 |
| Total | 36 | 18 | 12 | 10 | 8 | 16 | 100 |

Import Policy and Regulations

There are no restrictions on imports of fresh fruits and vegetables, except that imports are not allowed from Israel. However, under a special law promulgated in November, 1964 only Kuwaiti nationals and firms, including those with majority Kuwaiti participation, are allowed to import merchandise of any kind. A certificate of origin by recognised authorities in the exporting country is required along with the bill of lading invoice. Fresh fruits and vegetables are exempted from the normal duty of 4% levied on imports into Kuwait.

Channels of Distribution

Imports are mostly effected on firm price contract basis. Importers themselves act as wholesalers in most cases and wholesaler to retailer sales are generally effected on auction basis.

B. Processed Fruits and Vegetables

Market Size

Imports of processed fruits and vegetables into Kuwait increased from 13,652 tonnes valued at $ 4.8 million in 1965 to 14,231 tonnes valued at $ 5.0 million in 1966. The following table provides an indication of the break-up by major categories. Imports represent consumption as re-exports are negligible.

Contd.

Imports of Processed Fruits and Vegetables into Kuwait 2/

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity (Tonnes) | Value (Thousand Dollars) | Quantity (Tonnes) | Value (Thousand Dollars) |
| Canned fruits | 1,327 | 510 | 1,556 | 580 |
| Fruit and vegetable juices | 2,783 | 918 | 2,829 | 1,036 |
| Canned vegetables | 3,625 | 1,226 | 3,115 | 1,002 |
| Tomato paste | 4,222 | 1,492 | 4,829 | 1,792 |
| Others | 1,695 | 471 | 1,902 | 574 |
| Total | 13,652 | 4,617 | 14,231 | 4,984 |

Tomato paste is the single largest item of imports, in terms of quantity as well as value. Nearly 80% of these supplies come from Italy; this makes Italy the largest supplier of processed fruits and vegetables to Kuwait, with a share of 26% of the total value (average for 1965 and 1966). USA, which accounts for a major proportion of the imports of canned vegetables and fruit juices into Kuwait, is the second largest supplier; its share in the Kuwaiti market, however, declined from 22% in 1965 to 16% in 1966, as a result of reduced exports of canned vegetables. UAR, UK, Australia and Jordan are important among other suppliers. China (Mainland) improved her share of the market from 2% in 1965 to 9% in 1966, mainly through larger supplies of tomato paste. India also improved her share from 2% to 4%.

2/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, Table B-2.15, of the Report.

between the two years by capturing a larger share of the market for mango nectar. Shares of major suppliers in respect of different categories are shown below.

Share of Major Suppliers in Imports
(1965-66 Average: Value basis)

(Percentages)

| | Canned Fruits | Fruit/Vegetable Juices | Canned vegetables | Tomato Paste | Others | Total |
|---|---|---|---|---|---|---|
| Italy | - | 1 | - | 77 | - | 26 |
| USA | 13 | 23 | 48 | 2 | 10 | 19 |
| UAR | - | 29 | 11 | 8 | 2 | 9 |
| UK | 6 | 4 | 23 | - | 2 | 7 |
| Australia | 48 | - | - | - | - | 6 |
| China (Mainland) | 11 | 1 | - | 5 | - | 5 |
| Jordan | - | - | - | - | 43 | 5 |
| India | 2 | 10 | 2 | - | 15 | 3 |
| Others | 20 | 32 | 16 | 8 | 28 | 20 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

Import Policy and Regulations

There are no restrictions on imports except that imports from Israel are banned. All shipments of processed fruits and vegetables are, however, subject to examination by the Health authorities in Kuwait. A duty of 4% ad valorem is uniformly levied on imports of processed fruits and vegetables regardless of the source of import.

Channels of Distribution

Importers act as wholesalers and in very few cases as retailers also. Prices are quoted on c.i.f. basis, with commission ranging from 3 to 5%. Except for some leading American and English brands, there are no agents in the usual sense of the term. Normally when an importer in Kuwait has established trade with an exporter abroad, other importers look for other sources.

Mark-ups in Kuwait are high, ranging from 20 to 30% at the wholesaler level and 40 to 50% at the retailer level.

PERSIAN GULF
AL MANAMAH
BAHRAIN
SAUDI ARABIA
QATAR

## 5.17 BAHRAIN

### Background

Bahrain, with a population of 180,000 is a small country, comprising an archipelago of 33 low-lying islands, about 630 sq. km. in area. Oil industry is the mainstay of the economy of Bahrain, contributing about 75% of the national income. The balance comes mostly from customs duties; this underlines the importance of trade in Bahrain's economy. By virtue of its favourable location in the centre of the Arabian Gulf, Bahrain has built up over years a flourishing re-export trade with Saudi Arabia and the Qatar and Trucial States. Of the current imports of over $ 80 million, 30 to 35% of the merchandise is re-exported. Industrial development, outside the oil industry, is very limited. But there has been considerable progress in certain sectors, such as non-alcoholic beverages and building materials like cement blocks and asbestos roofing.

Although there is some local production, bulk of the requirements of fruits and vegetables are met through imports. India is a major supplier of fresh fruits and vegetables to Bahrain.

### A. Fresh Fruits and Vegetables

### Market Size

Domestic production being very limited and re-export trade in fresh fruits and vegetables being not significant, consumption may be equated with the estimated import of 15,000 tonnes or 83 kg per capita.

Production. The area under cultivation in Bahrain is largely confined to a narrow strip of land, about 5 km in width, along the Northern coast of the Bahrain Island. Excluding dates which account for the bulk of production, bananas, pomegranates and figs are important among the fruit crops, but their production is by no means considerable. Production of vegetables, on the other hand, is relatively more; major vegetables cultivated include the following:

| | |
|---|---|
| Cauliflowers | Raddish |
| Tomatoes | Lettuce |
| Aubergines | Spinach |
| Cabbages | Turnips |
| Pumpkins | |

But it must be stressed that the overall production is very limited and that bulk of the requirements are met through imports.

Imports. Bahrain imports annually an estimated total of 15,000 tonnes of fresh fruits and vegetables. Imports averaged $ 2.4 million during 1964-66. India is the second largest supplier, being next only to Lebanon. Iran, Australia, Netherlands and South Africa are other major suppliers. Shares of important suppliers in the imports during 1964-66 are shown below:

(Next page)

Shares of Major Suppliers in Imports[1/]

(Thousand Dollars)

| | 1964 | 1965 | 1966 |
|---|---|---|---|
| Lebanon | 899 | 830 | 661 |
| India | 428 | 346 | 436 |
| Iran | 327 | 315 | 419 |
| Australia | 94 | 83 | 136 |
| Netherlands | 73 | 86 | 39 |
| South Africa | 36 | 50 | 62 |
| Pakistan | 57 | 23 | 31 |
| Saudi Arabia | 226 | 207 | 175 |
| Others | 412 | 274 | 348 |
| Total | 2,552 | 2,214 | 2,307 |

A sizable portion of the exports from India and Lebanon are effected by air. Exports from India increased from 3,160 tonnes in 1965-66 to 3,544 tonnes in 1966-67. Bananas, mangoes and onions account for bulk of the exports, as may be seen from the following table:

Imports of Fresh Fruits and Vegetables from India 2/

(Tonnes)

| | 1965-66 | 1966-67 |
|---|---|---|
| Bananas | 1,060 | 1,338 |
| Mangoes | 102 | 173 |
| Oranges | 38 | 63 |
| Berries | 13 | 12 |
| Chickoo | 2 | 2 |
| Other Fruits | 8 | 5 |
| Onions | 1,867 | 1,905 |
| Other Vegetables | 67 | 45 |
| Total | 3,157 | 3,543 |

1/ Department of Customs, Bahrain
2/ DGCI&S, Calcutta

Import Regulations

There is no restriction on imports of fresh fruits and vegetables from any source other than Israel. A uniform duty of 5% ad valorem is levied on all imports of fresh fruits and vegetables; there are no tariff preferences.

## B. Processed Fruits and Vegetables

Market Size

There is scarcely any production of processed fruits and vegetables in Bahrain. All the requirements are met through imports. The volume is limited, averaging about 2,000 tonnes, of which about 20% are re-exported. On this basis, consumption of processed fruits and vegetables would work out to 1,600 tonnes or 9 kg per capita.

Exports. Re-export trade in fruits and vegetables was of the order of $ 312,000 in 1964, $ 280,000 in 1965 and $ 300,000 in 1966. These are mainly directed to Qatar and Trucial States and East Coastal towns of Saudi Arabia.

Imports. UK, Australia and USA are the leading suppliers of processed fruits and vegetables to Bahrain. India's exports to Bahrain, comprising mainly pickles and chutneys and mango nectar, averaged 30 tonnes during the past two years.

Import Regulations

There are no restrictions on imports of processed fruits and vegetables from any source other than Israel. The Bahrain Government requires a certificate of origin from the Chamber of Commerce or Industry to the effect

that the goods exported contain no part of Israeli origin. A uniform duty of 5% is levied on all imports, without any tariff preferences.

## 5.18 THAILAND

### Background

Agriculture is the main bulwark of Thailand's economy, accounting for 35% of the national income, $ 3.2 billion, and 80% of the aggregate export earnings, $ 622 million, in 1965. Area under cultivation is about 100,000 sq. kms, representing 20% of the land area, major portion of which is covered by forests. The population of Thailand has been estimated at 31.5 million in 1966 and per capita income $ 105.

Thailand is by and large self-sufficient in respect of fruits and vegetables. It is a leading exporter of mangoes and different varieties of beans, and has the potential of becoming an important exporter of bananas. Although Thailand is one of the largest producers of fresh pineapples, processing of the fruit is negligible. Efforts are, however, being made to develop the processing industry in the country.

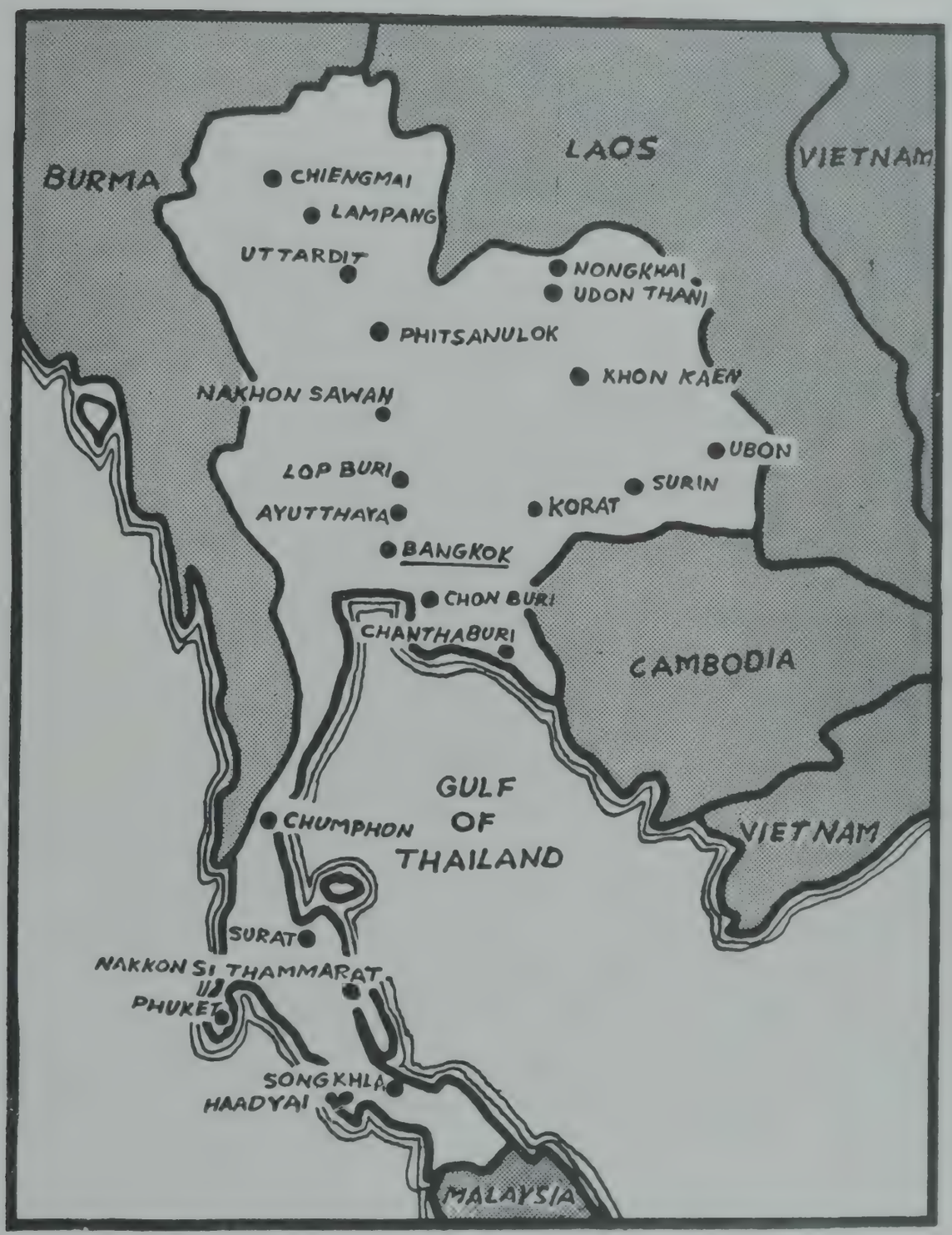
### A. Fresh Fruits and Vegetables

### Market Size

Accurate statistics on overall production are not available, but total production is likely to be close to 2.5 million tonnes. While bulk of the fruits produced are consumed locally, over 10% of the vegetables (mostly beans) are exported. Imports of fresh fruits and vegetables are insignificant. Per capita consumption works out to 80 kg, as shown below:



(Next page)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VIETNAM
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LAMPANG
UTTARDIT
NONGKHAI
UDON THANI
PHITSANULOK
KHON KAEN
NAKHON SAWAN
UBON
LOP BURI
SURIN
AYUTTHAYA
KORAT
BANGKOK
CHON BURI
CHANTHABURI
CAMBODIA
GULF
OF
THAILAND
CHUMPHON
VIETNAM
SURAT
NAKKON SI THAMMARAT
PHUKET
SONGKHLA
HAADYAI
MALAYSIA

Apparent Consumption of Fresh Fruits and Vegetables 1/

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production (est.) | 1,700 | - | 800 | - |
| Imports | - | - | 4 | - |
| Exports | 10 | 0.9 | 74 | 8.2 |
| Apparent Consumption | 1690 | - | 730 | - |
| Per Capita Consumption (kg) | 57 | | 23 | |

Production. Bananas represent the most important crop, followed by pineapples, citrus and water melons. Sweet potatoes, green beans, and onions are important among vegetable crops. Total production is around 2.5 million tonnes comprising 1.7 tonnes of fruits and 0.8 million tonnes of vegetables.

Imports. Imports of fresh fruits and vegetables increased from 3,200 tonnes valued at $ 775,000 in 1965 to 3,900 tonnes valued at $ 959.00 in 1966. Mushrooms and truffles claim the largest share of imports in terms of value, 41% during 1964-65, although, in terms of quantity, their share is very limited (3%). Shallots and onions accounted for 55% and 34% of the total imports

1/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report

in terms of quantity, their shares in terms of value being 35% and 17% respectively. Imports of fruits are negligible. Break-up of imports during 1965-66 was as follows:

Imports of Fresh Fruits and Vevegetables 2/

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Fruits | 5 | 4 | 18 | 12 |
| Seed Potatoes | 174 | 18 | 147 | 19 |
| Onions | 851 | 101 | 1,582 | 193 |
| Shallots | 2,033 | 307 | 1,892 | 292 |
| Mushrooms and Truffles | 110 | 326 | 123 | 389 |
| Other Vegetables | 48 | 19 | 142 | 54 |
| | 3,221 | 775 | 3,904 | 959 |

Japan, which is a leading supplier of mushrooms and onions, claims are largest share in the total value of imports, 33% during 1965-66. Next in importance is Taiwan (24%) whose supplies comprise mainly shallots. India, another major supplier of shallots to Thailand, accounted for 11% of the total imports. Other important suppliers are South Korea, mainly for mushrooms, and Netherlands, for onions and seed potatoes. Shares of major suppliers are shown below:

(Next page)

2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report

Share of Major Suppliers in Imports (Value) 3/
(1965-66 - average)

| | % |
|---|---|
| Japan | 33 |
| Taiwan | 24 |
| South Korea | 16 |
| India | 11 |
| Netherlands | 9 |
| Others | 7 |
| Total | 100 |

Exports. Exports of fresh fruits and vegetables increased from 80,300 tonnes valued at $ 8.6 million in 1965 to 88,000 tonnes worth $ 9.7 million in 1966, reflecting the rise in exports of beans (all types), which in fact accounted for as much as 83% of the total exports during 1965-66. Bananas and mangoes are important among fruits exported. Break-up of exports during 1965-66 was as follows:

(Next page)

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, op. cit

Import Regulations

Imports are heavily restircted through high tariffs, ranging upto $ 750 per tonne in respect of most fruits and vegetables (Volume V, Chapter VII(p)). Prospects for India are negligible, except possibly in the case of seed potatoes and onions.

## B. Processed Fruits and Vegetables

Market Size

Production of processed fruits and vegetables can be placed around 50,000 tonnes, comprising mostly pickled and stewed fruits and vegetables. Imports as well as exports are negligible. Per capita consumption at 1.6 kg is quite low.

Apparent Consumption of Processed Fruits and Vegetables (1965-66 - average) 4/

| | Quantity (Thousand Tonnes) | Value (Million Dollars) |
|---|---|---|
| Production (est.) | 50 | - |
| Imports | 2 | 1.2 |
| Exports | 1 | 0.1 |
| Apparent Consumption | 51 | - |
| Per Capita Consumption (kg) | 1.6 | - |

Production. Production of processed fruits and vegetables consists mostly of pickled and stewed fruits

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4/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV of the Report

Exports of Fresh Fruits and Vegetables 5/

Quantity: Tonnes
Value: Thousand Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Tangerines | 717 | 74 | 25 | 2 |
| Grapefruit | 665 | 69 | 479 | 58 |
| Other Citrus | 137 | 11 | 31 | 3 |
| Bananas | 7,749 | 684 | 3,256 | 224 |
| Mangoes | 2,977 | 295 | 2,246 | 234 |
| Pineapples | 162 | 16 | 138 | 15 |
| Water Melons | 593 | 26 | 691 | 25 |
| Other Fruits | 263 | 86 | 45 | 9 |
| Green Beans | 44,573 | 4,837 | 33,071 | 3,859 |
| Other Beans | 17,182 | 1,977 | 42,779 | 4,548 |
| Other Vegetables | 5,323 | 497 | 5,264 | 692 |
| Total | 80,341 | 8,572 | 88,025 | 9,669 |

Mangoes are exported almost entirely to Singapore and Malaysia. Japan and Hong Kong absorb the entire exports of bananas. Although bananas are available in abundance, mostly Dwarf Cavandish, for which a large market exists in Japan, Thailand has not been able to exploit this opportunity fully, mainly for want of proper organisation. Exports of beans are directed mostly to Malaysia, Singapore, Hong Kong and Ceylon.

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5/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report

and vegetables. Of the estimated 50,000 tonnes of total production, barely 4% represents canned fruits and vegetables. While production of pickled and stewed fruits and vegetables is mostly undertaken by some 80 odd units on a cottage scale, 8 canners account for the bulk of canned fruits and vegetables. Of the latter, the Preserved Food Organisation (PFO), run by the Ministry of Defence, is by far the largest; canned meat products account for a main proportion of its current output. It has capacity to produce 66,000 cans or 22 tonnes of different products per day, although only 10% of it is currently being utilized. Pineapple represents the largest item of production.

The Thailand Pineapple Canning Industry Co-operation Ltd (TPC), which commenced its operations only in 1967, is the largest unit in the private sector, and though its capacity, at 15 tonnes per day, is considerably less, its output is nearly the same as that of PFO. Effectively promoted, the TPC brand is already well established in the domestic market. Production of TPC during 1967 was as follows:

| | Tonnes |
|---|---|
| Pineapple slices | 120 |
| Pineapple tidbits and crush | 40 |
| Pineapple juice | 135 |
| Other Canned fruits (Longan, Rambutan etc.) | 200 |
| Other juices (Mango, Guava and Papaya) | 30 |
| Total | 525 |

A2 is the most popular can size, accounting for practically the entire production of canned pineapple slices and other fruits, and about 65% of the juices. The balance 35% of juices is packed mostly in No. 10 cans; the share of A2½ can is negligible. The TPC has plans to diversify the range of production to include jams, marmalades etc. and meat products. The unit has already made a beginning in exports, shipments amounting to 20 tonnes last year comprising 16 tonnes of pineapple juice to Japan and 4 tonnes of pineapple slices to West Germany, and hopes to build up a sizable export trade during the next few years.

The Thai Government is keen on developing the processing industry in the country. Food canning is one of the industries entitled to promotion privileges under the Promotion of Industrial Investment Act, 1962. Local demand being limited, efforts are being made to find outlets in overseas markets, particularly for canned pineapple products.

Imports. Imports of processed fruits and vegetables increased from 1,615 tonnes in 1965 to 2,604 tonnes in 1966. But the rise in terms of value at $ 32,000 was insignificant. This is because imports of natural fruit flavours, which accounted for 45% of the total value in 1965, recorded a steep decline of $ 437,000 in the following year. Imports of canned vegetables like potatoes and mushrooms rose considerably in 1966, but their unit values being much less in comparison, the rise in the value of these imports was barely sufficient to offset the decline due to natural flavours. Break-up of imports during 1965-66 was as follows:

(Next page)

## Imports of Processed Fruits and Vegetables 6/

Quantity: Tonnes
Value: Thousand Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Canned Fruits | 40 | 30 | 38 | 33 |
| Fruits and Fruit peels drained, glaced etc. | 30 | 10 | 19 | 6 |
| Jams, Marmalades etc. | 32 | 29 | 45 | 38 |
| Fruit juices | 138 | 82 | 230 | 112 |
| Natural Fruit flavours other processed fruits | 327 | 543 | 67 | 106 |
| Dehydrated vegetables | 70 | 85 | 107 | 121 |
| Tomato Juice | 132 | 53 | 70 | 26 |
| Other vegetable Juices | 157 | 24 | 293 | 94 |
| Canned Potatoes | 19 | 8 | 20 | 9 |
| Canned mushrooms and truffles | 110 | 12 | 665 | 114 |
| Other canned vegetables and vegetable preparations | 99 | 72 | 252 | 119 |
| Other processed vegetables | 405 | 230 | 683 | 399 |
| Total | n56 | 34 | 115 | 67 |
| | 1,615 | 1,212 | 2,604 | 1,244 |

6/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV of the Report

USA and Taiwan, between them account for about three-fourths of the total imports. While the share of USA in the total value of imports declined from 60% in 1965 to 39% in 1966, that of Taiwan increased from 21% to 36% between the two years. This fluctuation in the shares was due to the steep decline in the imports of natural fruit flavours, which are mostly obtained from USA. Other suppliers include UK, Japan and Hong Kong.

Exports. Exports of processed fruits and vegetables increased from 703 tonnes valued at $ 126,000 in 1965 to 195 tonnes valued at $ 156,000 in 1966. Exports, comprising mostly canned and dehydrated vegetables, are directed mainly to Malaysia, Singapore and Hong Kong. Break-up of exports during 1965-66 was as follows:

Exports of Processed Fruits and Vegetables 7/

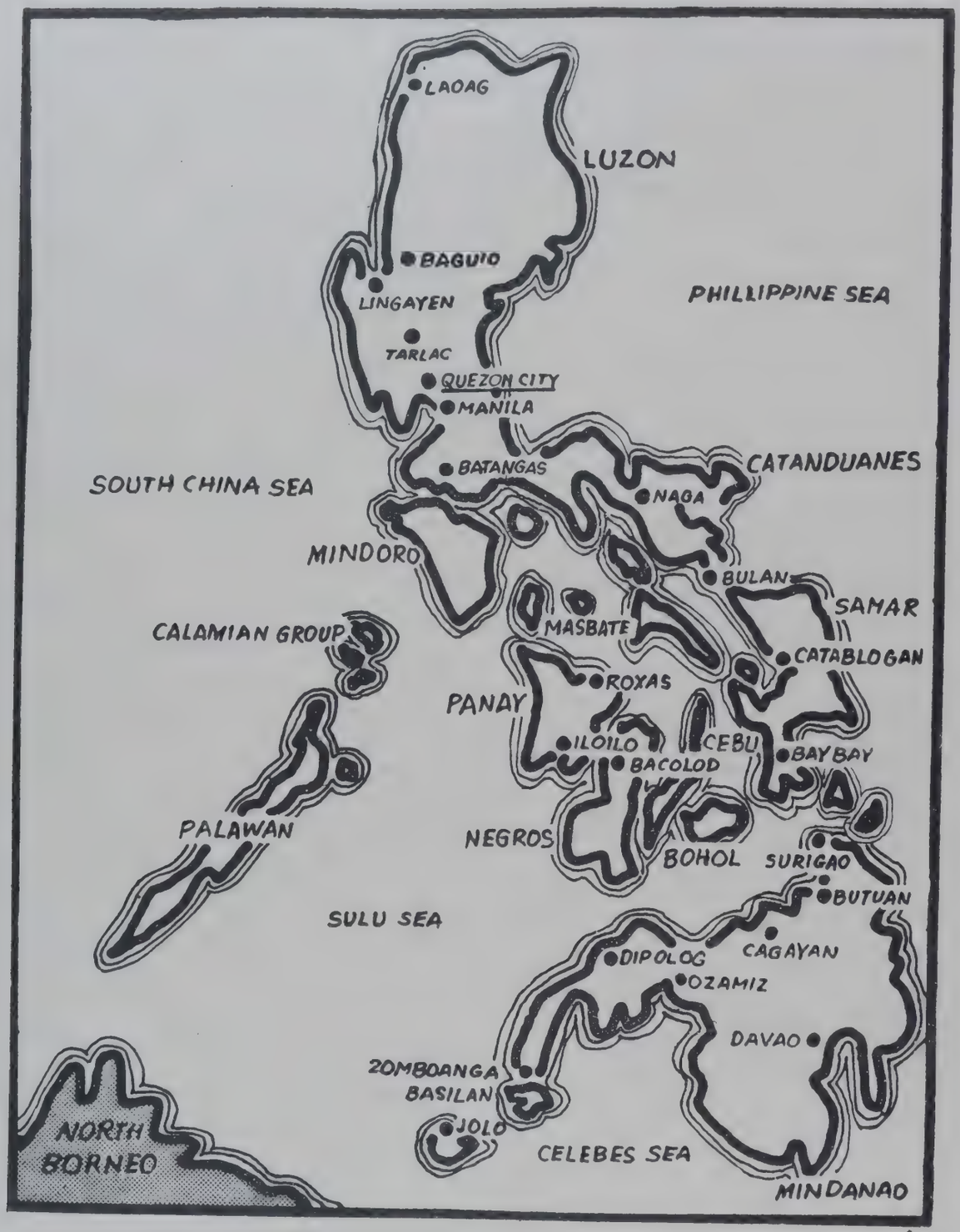
Quantity: Tonnes
Value: Thousand Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Fruits, drained, glaced etc. | 46 | 9 | 78 | 13 |
| Dehydrated vegetables | 371 | 44 | 510 | 62 |
| Canned Vegetables | 276 | 70 | 323 | 79 |
| Others | 10 | 3 | 4 | 2 |
| Total | 703 | 126 | 915 | 156 |

7/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV of the Report

Import Regulations

Imports of processed fruits and vegetables are effectively curbed through a rigid system of licensing and high tariffs, ranging upto 65% in most cases (Volume V, Chapter VII (p)). The limited volume of current imports represent to a considerable extent the requirements of the local US troops. Scope for exports from India is negligible.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TARLAC
QUEZON CITY
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SOUTH CHINA SEA
NAGA
MINDORO
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SAMAR
CALAMIAN GROUP
MASBATE
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SURIGAO
BUTUAN
SULU SEA
DIPOLOG
CAGAYAN
OZAMIZ
DAVAO
ZOMBOANGA
BASILAN
NORTH BORNEO
JOLO
CELEBES SEA
MINDANAO

## 5.19 PHILIPPINES

### Background

Philippines, comprising some 7,000 islands with a total land area of 302,000 square kilometres, is basically an agricultural country. The agricultural sector contributed 33% to the estimated GNP of $ 5.2 billion, and accounted for as much as 80% of the country's foreign exchange earnings in 1965. Current population is around 30 million. In spite of the high growth rate of population of 3.2%, per capita income has been rising at a satisfactory rate of 4% on the average during the past few years.

Besides cereals and numerous other agricultural products, different varieties of fruits and vegetables are grown in the country, important among them being bananas, pineapples and mangoes. Exports of fresh fruits and vegetables are of little consequence yet, but the processing sector makes an appreciable contribution to the country's export earnings. Imports are quite limited, and the trade is largely confined to USA, with which Philippines has special trade relations.

### A. Fresh Fruits and Vegetables

### Market Size

Philippines is by and large self-sufficient in fresh fruits and vegetables, imports as well as exports being limited. Per capita consumption works out to 75 kg, comprising 43 kg of fruits and 32 kg of vegetables, as shown below:


(Next page)

Apparent Consumption of Fresh Fruits and Vegetables 1/
(1964-65 - average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 1,277 | - | 973 | |
| Imports | 15 | 2.4 | 2 | 0.4 |
| Exports | 3 | 0.5 | - | - |
| Apparent Consumption | 1,289 | - | 975 | - |
| Per Capita Consumption (kg) | 43 | - | 32 | - |

Production. Total area under fruit and vegetable crops averaged 678,000 hectares and production 2.4 million tonnes, as may be seen from the following table:

Area Under and Production of Fruits and Vegetables 2/

Area: Thousand Hectares
Production: Thousand Tonnes

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Area | Production | Area | Production | Area | Production |
| Fruits | 389 | 1,275 | 396 | 1,279 | 377 | 1,308 |
| Bananas | 216 | 755 | 220 | 685 | 210 | 683 |
| Mangoes | 49 | 95 | 51 | 129 | 43 | 131 |
| Citrus | 28 | 61 | 29 | 71 | 28 | 75 |
| Pineapples | 27 | 156 | 30 | 176 | 25 | 188 |
| Jack Fruit | 17 | 55 | 17 | 73 | 16 | 80 |
| Papayas | 11 | 55 | 10 | 59 | 9 | 58 |
| Water Melons | 6 | 29 | 4 | 19 | 4 | 21 |
| Others | 35 | 69 | 35 | 67 | 42 | 72 |

1/ i. Bureau of Agricultural Economics, Quezon City, Philippines.
ii. Central Bureau of Statistics, Manila, Philippines

2/ Bureau of Agricultural Economics, Op.cit.

| | 1964 | | 1965 | | 1967 | |
|---|---|---|---|---|---|---|
| | Area | Production | Area | Production | Area | Production |
| Vegetables | 306 | 1,177 | 286 | 1,121 | 279 | 1,094 |
| Sweet Potatoes | 158 | 784 | 146 | 725 | 139 | 701 |
| Aubergines | 18 | 44 | 4 | 32 | 18 | 52 |
| Tomatoes | 15 | 53 | 17 | 73 | 16 | 72 |
| Beans and peas | 61 | 27 | 56 | 26 | 55 | 24 |
| Cabbages | 5 | 40 | 4 | 32 | 4 | 32 |
| Onions | 4 | 13 | 5 | 15 | 5 | 15 |
| Potatoes | 3 | 18 | 3 | 16 | 3 | 17 |
| Others | 42 | 198 | 51 | 202 | 59 | 181 |
| Total | 695 | 2,452 | 682 | 2,400 | 656 | 2,402 |

It will be seen that bananas among the fruit crops and sweet potatoes among the vegetable crops are the most important. The rise in the production of mangoes and pine-apples is noteworthy.

Imports. Imports of fresh fruits and vegetables into Philippines averaged 17,700 tonnes worth $ 2.8 million during 1964-65. Apples represent the largest item of imports, claiming a share of 53% of the imports in terms of quantity and 40% in terms of value, during above period. Next in importance come grapes and oranges & tangerines, accounting for 20% and 17% respectively of the total value of imports. Imports of vegetables, comprising mainly beans and peas, nearly doubled between 1965 and 1966. Break-up of imports by major items is shown below:

(Next page)

Imports of Fresh Fruits and Vegetables 3/

Quantity: Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Apples | 9,361 | 1,045 | 9,426 | 1,224 |
| Grapes | 2,594 | 514 | 2,440 | 599 |
| Oranges & Tangerines | 2,557 | 497 | 1,958 | 434 |
| Other Citrus Fruits | 117 | 18 | 101 | 21 |
| Pears | 395 | 54 | 238 | 41 |
| Lychees | 75 | 7 | 141 | 16 |
| Dried Prunes | 313 | 124 | 449 | 159 |
| Other Dried Fruits | 206 | 43 | 179 | 36 |
| Other Fruits | 74 | 13 | 60 | 24 |
| Peas | 536 | 82 | 1,187 | 186 |
| Beans | 607 | 95 | 1,115 | 167 |
| Other Vegetables | 478 | 79 | 731 | 133 |
| | 17,313 | 2,571 | 18,025 | 3,040 |

USA is the largest supplier of fresh fruits and vegetables, claiming a share of 50% of the total value of imports during 1964-65; other major suppliers are Japan and Australia, which accounted for 26% and 12% of the total imports. Shares of major suppliers in respect of selected fruits are shown below:

(Next page)

3/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report

Shares of Major Suppliers in Imports (Quantum)[4/]
(1964-65 - average)

(Percentages)

| | Apples | Grapes | Citrus | Pears | Lychees |
|---|---|---|---|---|---|
| USA | 5 | 95 | 64 | 10 | - |
| Japan | 72 | - | - | 80 | 2 |
| Australia | 14 | 1 | 24 | - | - |
| Taiwan | - | - | 8 | - | 84 |
| Hong Kong | 7 | - | - | 10 | 14 |
| Others | 2 | 4 | 4 | - | - |
| Total | 100 | 100 | 100 | 100 | 100 |

Exports. Exports of fresh fruits and vegetables are practically confined to mangoes. Exports of mangoes, shipped almost exclusively to Hong Kong, increased considerably from 2,533 valued at $ 452,000 in 1964 to 3,243 tonnes worth $ 585,000 in 1965. Limited quantities of bananas and melons are also exported as may be seen from the following table:

Exports of Fresh Fruits and Vegetables[4/]

Quantity: Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Mangoes | 2,533 | 452 | 3,243 | 585 |
| Bananas and Plantains | 96 | 10 | 27 | 3 |
| Melons | 27 | 3 | 12 | 1 |
| Others | 1 | 2 | 5 | 3 |
| Total | 2,657 | 467 | 3,287 | 592 |

4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III, of the Report

However, with the recent operations of the Standard Fruit Company, who are keen on developing the banana industry in Philippines in a big way, mainly for the purpose of meeting the requirements of the Japanese market, bananas are expected to become by far the largest item of exports from Philippines during the next few years. A detailed account of the operations of the Standard Fruit Company in Philippines is given in Chapter 2.1.

Import Regulations

There are no particular restrictions on imports of fresh fruits and vegetables, which are, however, regulated effectively through tariffs. Details of tariffs are given at Volume V, Chapter VII (q) of the Report. In accordance with the special treaty agreement with USA, concessions in tariffs are extended to imports from USA. This explains the dominant position USA holds in the imports. Prospects for India are negligible.

## B. Processed Fruits and Vegetables

Market Size

The high tariff rates prevailing represent an effective check on imports of processed fruits and vegetables. And a sizable proportion of the local production is diverted to export markets, with the result that per capita consumption of processed fruits and vegetables in Philippines is quite low, averaging 2.3 kg during 1964-65.

Apparent Consumption of Processed Fruits and Vegetables 5/
(1964-65 - average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 90.0 | - | 17.5 | - |
| Imports | 1.5 | 0.2 | 1.8 | 0.4 |
| Exports | 39.8 | 9.3 | - | - |
| Apparent Consumption | 51.7 | - | 19.3 | - |
| Per Capita Consumption (kg) | 1.7 | - | 0.6 | - |

Production. While latest statistics are not available, it has been estimated on the basis of the Survey that current production is in the neighbourhood of 115,000 tonnes comprising 95,000 tonnes of processed fruits and 20,000 tonnes of processed vegetables. The rise in production of processed fruits over the 1964-65 level reflects mainly expansion in the production of pineapple products, which represent the most important sector of the processing industry. Pineapple processing industry in Philippines is essentially an extension of the operations of major Hawaiian packers, Del Monte and Dole, the latter having entered the field only three years ago. Lower unit costs of land and labour, coupled with lower corporate profit tax, constituted the main attraction for these canners for choosing Philippines as the base

5/ i. Bureau of Agricultural Economics, Op. cit.
ii. Bureau of Census and Statistics, Op.cit.

for expansion of their operations. A detailed discussion of the pineapple processing industry in Philippines is given in Chapter 4.3 of Volume I, of the Report. Considerable rise in production is envisaged in the next few years, especially in view of the contemplated expansion in the Dole operations.

Imports. Imports of processed fruits and vegetables averaged 3,330 tonnes valued at $ 625,000 during 1964-65. Tomato paste, canned vegetables and canned fruits are the major items of imports. While imports of tomato paste declined from 956 tonnes in 1964 to 344 tonnes in 1965, canned fruits evinced a substantial rise from 263 tonnes to 547 tonnes between the two years. Break-up of imports by major products is shown below:

Imports of Processed Fruits and Vegetables 6/

Quantity: Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Canned Fruits in syrup | 263 | 45 | 547 | 126 |
| Fruits and Fruit Peels, drained, glaced etc. | 365 | 87 | 292 | 72 |
| Jams, Marmalades etc. | 22 | 6 | 81 | 33 |
| Other processed fruits | 578 | 43 | 793 | 51 |
| Dehydrated Vegetables | 123 | 36 | 127 | 19 |

(Cont. next page)

6/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, of the Report

| | 1964 | | 1965 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Vegetable soups | 211 | 43 | 179 | 35 |
| Vegetable Juices | 58 | 16 | 73 | 15 |
| Canned Vegetables | 636 | 90 | 733 | 122 |
| Tomato Paste | 956 | 266 | 344 | 102 |
| Other processed Vegetables | 151 | 24 | 129 | 20 |
| Total | 3,363 | 656 | 3,298 | 595 |

USA is by far the largest supplier of processed fruits and vegetables, accounting for 74% of the total value of imports during 1964-65; other suppliers include Hong Kong and Taiwan.

Exports. Exports of processed fruits and vegetables increased from 35,500 tonnes valued at $ 8.1 million in 1964 to 44,100 tonnes valued at $ 10.5 million in 1965. Canned pineapples represent by far the most important item, accounting for 94% of the total exports in terms of quantity and 87% in terms of value, during this period. Important among other items is mixed fruits (fruit salad). Exports during 1964-65 were as follows:

Exports of Processed Fruits and Vegetables 7/

Quantity: Thousand Tonnes
Value : Million Dollars

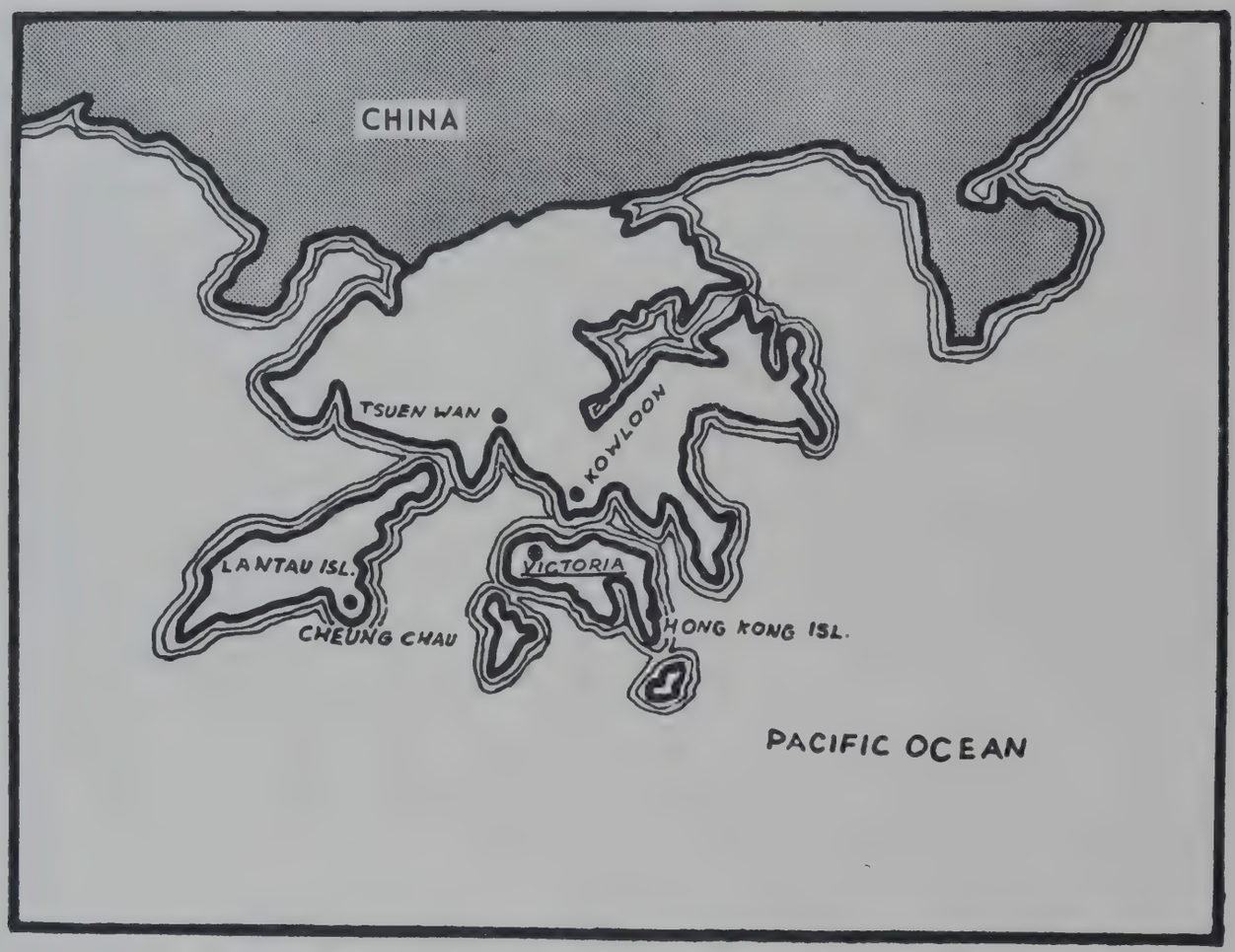
| | 1964 | | 1965 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Pineapples in syrup | 33,631 | 7,217 | 40,994 | 8,998 |
| Mixed Fruits (fruit salad) | 973 | 455 | 3,103 | 1,446 |
| Other Processed Fruits | 845 | 407 | 33 | 23 |
| Processed Vegetables | 16 | 4 | 5 | 4 |
| Total | 35,465 | 8,083 | 44,135 | 10,471 |

7/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, of the Report

USA absorbs about half the exports of canned pineapples; West Germany, UK, Netherlands, Sweden, Japan and Spain are important among other markets. Mixed fruits and other processed fruits are directed almost entirely to USA.

Import Regulations

Imports of processed fruits and vegetables into Philippines are effectively checked through high tariffs, ranging from 60% to 150% ad valorem (Volume V, Chapter VII (q). The dominant share USA has in the imports is attributable to the preferential tariffs applicable to imports from that source. Prospects for India are negligible.


CHINA
TSUEN WAN
KOWLOON
VICTORIA
LANTAU ISL.
CHEUNG CHAU
HONG KONG ISL.
PACIFIC OCEAN

## 5.20 HONG KONG

### Background

The British Crown Colony of Hong Kong lies off the south-eastern coast of the Chinese province of Kwantung, with a total are of 398 square miles comprising Hong Kong Island, the ceded territory of Kowloon and Stonecutter's Island in the harbour, and new territories leased by China to Britian in 1898 for a period of 99 years. Located just within the tropics and with extensive sea area, the Colony's climate is markedly affected by monsoons. According to the census of March 1961, the total population of the Colony was 3.1 million, present population having been estimated at approximately 4 million.

Hong Kong follows liberal economic policies of free enterprise and free trade. The Government of the Colony does not directly interfere with economic activities and its role has always been limited to providing stable and secure framework within which commerce and industry could flourish with maximum efficiency. It is a completely free-trade port where duties are levied on a very few commodities, mainly for revenue purposes. The economy is largely commercial oriented, with entrepot trade playing a very important role.

The horticultural production of Hong Kong is limited to small quantities of fresh vegetables grown in the Colony. As such the requirements of the Colony are met through imports, total imports of fresh and processed fruits and

vegetables having amounted to $ 47.90 million during 1966.

## A. Fresh Fruits and Vegetables

### Market Size

With the exception of 65,000 tonnes of fresh vegetables grown in the country over the period 1964-66. the market is completely import-oriented, not only for domestic consumption but also for re-export. The following table presents the average annual consumption of fresh produce in Hong Kong over 1964-66:

Apparent Consumption of Fresh Fruits and Vegetables
(1964-66 - average) 1/

Quantity: Thousand Tonnes
Value : Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | - | - | 65.0 | - |
| Imports | 183.6 | 27.95 | 285.3 | 3.38 |
| Exports | 21.7 | 15.96 | 125.7 | 11.15 |
| Apparent Consumption | 161.9 | - | 224.6 | - |
| Per Capita Consumption (kg) | 40.5 | | 56.2 | |

1/ i) Production Year Book, 1966, FAO
ii) Commodity Trade Statistics, United Nations

It would be apparent from the above that exports constitute a significant proportion of Hong Kong's trading in fresh produce, having accounted for about 31% of the total. Per capita consumption has been worked out to 40.5 kg for fruits and 56.2 kg for vegetables.

Production. There is no production of fresh fruits in the Colony; vegetable production was however placed at 65,000 tonnes during 1964-66. Hong Kong's output of fresh vegetables has declined from 77,000 tonnes in 1963 to 60,000 tonnes in 1965. Principal products grown in the country include cabbages, sweet potatoes and yams. Small quantities of onions and tomatoes are also cultivated, total production having amounted to 2,000 tonnes each of these products during 1965.

Exports. Total exports during 1964-66 amounted to 147,400 tonnes, comprising 125,700 tonnes of vegetables and 21,700 fruits. Hong Kong's exports mainly represent re-exports, total export of the domestic produce having been limited to 735 tonnes over the period. Major items entering re-export trade include apples, oranges & tangerines, bananas, potatoes, tomatoes and seasonal vegetables. Following table indicates the re-export trade of Hong Kong in 1964-66:

(Next page)

## Exports of Hong Kong[2/]

Quantity: Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Fruits** | | | | | | |
| Oranges & Tangerines | 2,768 | 494 | 3,457 | 604 | 4,059 | 648 |
| Bananas | - | - | - | - | 3,776 | 204 |
| Fresh Fruits, n.e.s. | 6,128 | 691 | 5,731 | 1,174 | 12,236 | 1,406 |
| Total (incl. others) | 13,900 | 2,376 | 21,595 | 3,768 | 29,883 | 4,033 |
| **Vegetables** | | | | | | |
| Potatoes | 3,686 | 184 | 11,793 | 754 | 11,594 | 1,073 |
| Tomatoes | - | - | - | - | 1,413 | 110 |
| Fresh Vegetables, n.e.s. | 67,132 | 3,457 | 61,923 | 7,346 | 61,112 | 6,095 |
| Total (incl. others) | 133,200 | 6,761 | 122,500 | 14,623 | 121,600 | 12,077 |

Re-exports which mainly include apples, tangerines and oranges, are directed to Singapore, Japan and Laos, Singapore having accounted for over 80% of the total exports. Vegetables are largely exported to Singapore, Malaysia, Japan and Ceylon, Singapore and Malaysia being the major buyers. Of the total annual imports of 285,300

2/ Commodity Trade Statistics, United Nations

tonnes during 1964-66, approximately 125,700 tonnes were re-exported. Local production being small and limited to 2 or 3 varieties, viz. cabbages and sweet potatoes, exports of local produce have not been considerable. Being a major entrepot centre, Hong Kong has adequate facilities of shipping, banking and merchandising, which have contributed to the substantial re-export trade that exists in the Colony.

Imports. Imports of fruits and vegetables have been showing steady improvement over the past three years. Fruits have evinced an increase from 155,500 tonnes in 1964 to 209,500 tonnes in 1966 and vegetables from 267,000 tonnes to 293,400 tonnes. Major items imported into Hong Kong include oranges & tangerines, lemons, grapefruits, bananas, apples, grapes, potatoes, tomatoes and miscellaneous vegetables as would be seen from the table below:

Imports of Fresh Fruits and Vegetables into Hong Kong 1964-66 3/

Quantity: Thousand Tonnes
Value : Thousand Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| **Fruits** | | | | | | |
| Oranges, Tangerines etc | 52.3 | 11,386 | 60.2 | 11,949 | 65.3 | 12,824 |
| Lemons. Grapefruit etc | 5.7 | 857 | 8.6 | 1,116 | 8.7 | 1,015 |
| Bananas, Plantains Fresh | 17.2 | 828 | 18.2 | 922 | 29.2 | 1,436 |
| Apples Fresh | 28.5 | 4,364 | 31.5 | 5,298 | 34.5 | 5,312 |
| Total (incl. others) | 155.5 | 24,189 | 185.9 | 29,011 | 209.5 | 30,676 |

3/ Commodity Trade Statistics, United Nations

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Vegetables | | | | | | |
| Potatoes Fresh | 21.8 | 940 | 26.9 | 1,169 | 29.1 | 1,192 |
| Leguminous Vegetables | 30.8 | 3,253 | 51.1 | 5,611 | 31.4 | 3,686 |
| Tomatoes Fresh | 7.4 | 407 | 8.8 | 457 | 11.9 | 628 |
| Total (incl. others) | 267.0 | 14,650 | 295.5 | 17,197 | 293.4 | 16,060 |

It is clear from the above table that oranges and tangerines constitute the chief item accounting for 26% of the total imports in 1966 followed by apples, bananas, and lemons & grapefruits. Among vegetables, potatoes and tomatoes are important.

The Hong Kong market for fresh produce is mainly dominated by Mainland China, followed by USA and South Africa. Whereas China's share was 81% in respect of lemons & grapefruits, 92% for bananas and 74% for apples, the shares held by USA were 16% for lemons & grapefruits, 10% for apples and 32% for oranges & tangerines. The following table presents the position of major suppliers of fresh fruits and vegetables during 1966.

(Next page)

Major Suppliers of Fresh Fruits to Hong Kong Market During 1966 (Percentage of total imports) 4/

| | Oranges & Tangerines | Lemons & Grapefruit | Bananas Plaintains etc | Apples fresh | Other Fruits |
|---|---|---|---|---|---|
| USA | 32 | 16 | - | 10 | - |
| South Africa | 21 | - | - | - | - |
| China | 28 | 81 | 92 | 75 | 70 |
| Taiwan | - | - | - | - | 14 |
| Others | 19 | 3 | 8 | 15 | 16 |

Mainland China also dominates the market in respect of potatoes, tomatoes and other vegetables. The respective shares of important suppliers during 1966 are indicated below:

Major Suppliers of Fresh Vegetables into Hong Kong during 1966 (Percentage to total imports) 4/

| Country | Potatoes | Leguminous vegetables | Tomatoes | Other vegetables |
|---|---|---|---|---|
| China | 90.0 | 60 | 68 | 94 |
| Thailand | - | 25 | 31 | - |
| Taiwan | - | - | - | 4 |
| Others | 10.0 | 15 | 1.0 | 2 |

4/ Commodity Trade Statistics, United Nations

It would thus appear that after Mainland China, Hong Kong depends for its supplies chiefly on South Africa, USA, Taiwan and Thailand.

Import Policy and Regulations

Hong Kong is a free port and nominal duties are imposed on the imports of certain items including beverages and tobacco. Imports of fresh fruits and vegetables are free from duties and restrictions.

( Contd. )

## B. Processed Fruits and Vegetables

### Market Size

Production of processed fruits and vegetables in the country is limited, most of the requirements being met through imports. Following data presents the apparent consumption of processed fruits and vegetables in Hong Kong over 1964-66:

Apparent Consumption of Processed Fruits and Vegetables in Hong Kong 6/
(1964-66 - average)

Quantity: Thousand Tonnes
Value: Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production | 20.0 | - | 15.0 | - |
| Imports | 14.2 | 4.79 | 45.7 | 11.78 |
| Exports including re-exports | 5.3 | 2.56 | 18.2 | 5.17 |
| Apparent Consumption | 28.9 | - | 42.5 | - |
| Per Capita Consumption (kg) | 7.1 | - | 10.5 | - |

Total consumption of processed fruits and vegetables averaged 71,400 tonnes, per capita consumption being 17.6 kg comprising 7.1 kg of fruits and 10.5 kg of vegetables. It may be indicated that about 22% of the total imports were re-exported, re-export trade in Hong Kong being significant. Statistics on production of fruits and vegetables are not available and as such the production figures given above

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6/ i) Commodity Trade Statistics, United Nations
ii) Survey Estimates

have been estimated in consultation with knowledgeable people in the trade. There are reported to be six canneries operating in Hong Kong, their production being limited to the canning of tropical fruits like lychees and juices and vegetables. Hong Kong has also been able to build up a substantial trade in chilli products, Amoy Canning Company of Hong Kong being the major unit operating in the field. Amoy brand of lychee wholes, chilli sauces, waterchestnuts and loghats are well-known in European countries.

Exports. Total exports (including re-exports) of processed fruits and vegetables from Hong Kong averaged 23,500 tonnes valued at $ 7.73 million over 1964-66, vegetables being more important with a share of 18,200 tonnes. It is estimated that about 61% of the total exports represent re-exports, export of local products being limited to 6,700 tonnes of vegetables and 2,300 tonnes of fruits.

Major buyers of locally produced fruits and vegetables include USA, Malaysia and Singapore for fruits and UK, Netherlands and USA for vegetables. Whereas re-exports of vegetables are mainly directed to Singapore, Japan, Malaysia and West Germany, fruit preparations are mainly exported to USA only. Following are presented the exports and re-exports of fruits and vegetables of Hong Kong.

(Next page)

Exports and Re-exports of Processed Fruits and Vegetables 7/

Quantity: Thousand Tonnes
Value: Million Dollars

| | 1964 | | | | 1966 | | | |
|---|---|---|---|---|---|---|---|---|
| | Exports | | Re-exports | | Exports | | Re-exports | |
| | Qty | Val | Qty | Val | Qty | Val | Qty | Val |
| Preserved Fruits | - | - | 1.7 | 564 | - | - | 1.6 | 634 |
| Fruit Juice | - | - | - | - | 0.3 | 121 | - | - |
| Fruit in Syrup | 2.8 | 1,584 | 1.6 | 498 | 2.1 | 1,442 | 1.5 | 580 |
| Preserved Vegetables | 6.6 | 2,338 | 9.5 | 2,357 | - | - | 12.7 | 3,506 |
| Total | 9.4 | 3,912 | 12.8 | 3,419 | 8.6 | 3,692 | 15.8 | 4,720 |

It would appear from the above that whereas re-exports increased from 12,798 tonnes in 1966, exports declined from 9,444 tonnes to 8,558 tonnes in 1966. This is attributable to the shortfall in the output of processed items in Hong Kong during 1965-66.

Imports. Total imports of processed fruits and vegetables amounted to 59,900 tonnes during 1964-66, comprising 14,200 tonnes of fruits and 45,700 tonnes of vegetables. Major items entering Hong Kong market include jams and jellies, fruit juices, preserved fruits, and Chinese type of preserved vegetables. Imports of both fruits and vegetables have been showing a steady improvement over the past three

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7/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, table B-3.17, Volume IV of the Report

years, imports of fruits having risen from 13,660 tonnes in 1964 to 14,229 tonnes in 1966 and that of vegetables from 39,616 tonnes to 51,601 tonnes. It would thus appear that the growth in the imports of vegetables has been much more pronounced at about 27% over the period as against that of fruits placed at 6%. Following table indicates the imports of major items over 1964-66:

Imports of Processed Fruits and Vegetables 8/

Quantity: Tonnes
Value: Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Fruit Jams | 728 | 310 | 696 | 301 | 653 | 279 |
| Fruit Juices | 1,723 | 814 | 1,871 | 871 | 1,668 | 797 |
| Preserved Fruits | 11,209 | 3,354 | 12,184 | 3,816 | 11,908 | 3,840 |
| Preserved Vegetables | 39,616 | 10,136 | 46,001 | 11,949 | 51,601 | 13,268 |
| Total | 53,276 | 14,614 | 60,752 | 16,937 | 65,830 | 18,184 |

It would be clear from the above that preserved fruits mainly peaches, pineapples and apricots are the major items among fruit preparations. Among vegetable preparations, dehydrated vegetables, mushrooms, water-chestnuts, chutneys and turnips are important. Mainland China dominates the market followed by USA, UK, Australia, New Zealand, South Africa and Taiwan, as would be evident from the table given below:

(Next page)

8/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, op. cit

Major Suppliers of Processed Fruits and Vegetables to Hong Kong during 1966 9/
(Percentage to the total imports)

| | Fruit Jam, Jellies, etc. | Fruit and Vegetable Juices | Preserved Fruits | Other Fruit Preparations | Preserved Vegetables |
|---|---|---|---|---|---|
| Australia, New Zealand and South Africa | 46 | - | - | - | - |
| UK | 29 | 14 | - | - | - |
| USA | - | 46 | 6 | 13 | - |
| China (Mainland) | - | 25 | 74 | 76 | 60 |
| Taiwan | - | - | 9 | - | 7 |
| Poland | - | - | - | - | 5 |
| Others | 25 | 15 | 11 | 11 | 28 |

It would be apparent from the above that Mainland China dominates the market in respect of preserved fruits, fruit preparations and preserved vegetables, jams and jellies market being mainly controlled by Australia, New Zealand, South Africa and UK. In respect of fruit juices, USA is the chief supplier having accounted for 46% of the total market during 1966 followed by China with 25% and UK 14%. Supplies of Taiwan to Hong Kong stood at 53% in the case of preserved fruits and 7% of preserved vegetables during 1966. Mainland China being nearer Hong Kong and having adequate production-base for Chinese types of fruits and vegetables coupled with lower

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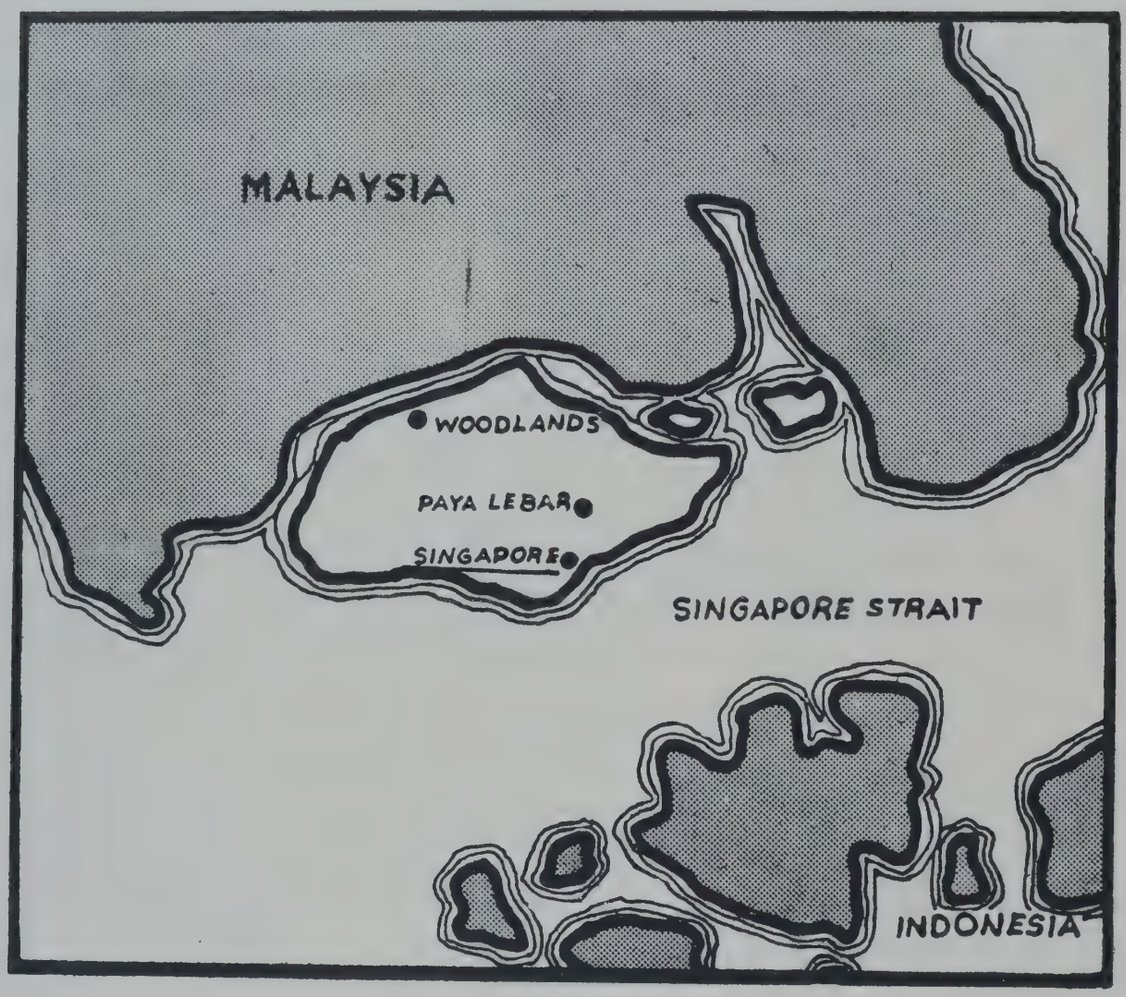
9/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, op. cit

price quotations has been able to annex a major proportion of the processed fruit and vegetable market. Chinese are fond of fruit juices, the most popular being black current juice. Some quantities of mango and guava nectar are also being imported presently and it is believed that with proper efforts mango nectar could become a popular item in the market. Besides, small quantities of mango chutneys are also imported.


MALAYSIA
WOODLANDS
PAYA LEBAR
SINGAPORE
SINGAPORE STRAIT
INDONESIA

## 5.21 SINGAPORE

Background

A prominent entrepot centre in South East Asia, Singapore, with a per capita income of over $ 1,000, is among the most affluent countries in the region. While the accent remains on trade, total trade in 1966 amounting to $ 2.5 billion, efforts are under way to develop an industrial base in the country. A wide range of new industries, most of them joint ventures with leading international concerns, had been set up during the past few years.

With a high density of population (8,700 per square mile), scarcity of land sets a severe limitation on the development of agriculture. Of the estimated population of 1.9 million, only 8% are engaged in agriculture. The trend is towards utilising the limited space available for setting up industrial units rather than raising agricultural crops.

Substantial quantities of fruits and vegetables are imported from Malaysia. Sizable proportion of oranges, mandarins, apples, peas, grapes, onions, potatoes and cabbages originating from other sources are re-exported by Singapore to Malaysia, to the extent of 25% to 50% of the total imports. Mainly because of the better port facilities available, Singapore has come to be established as the trade centre, and Malaysian importers prefer to obtain their supplies through Singapore, where favourable credit terms are available from leading importers.

Pineapple canning industry in Singapore is fairly well established. Manufacture of jams and ready-to-serve beverages is also undertaken to a limited extent. Keen on developing the local processing industry, the Singapore Government offers attractive incentives to the local processing industry and has recently introduced, as a measure of protection, a tariff on imports of processed items, based on the sugar content.

## A. Fresh Fruits and Vegetables

### Market Size

Domestic production being limited, most of the requirements of fresh fruits and vegetables are met through imports. Per capita consumption in Singapore has been estimated at 117 kg, comprising 67 kg of fruits and 50 kg of vegetables. Break-up of apparent consumption is given below:

Apparent Consumption of Fresh Fruits and Vegetables in Singapore
(1964-66--average)

Quantity: Thousand Tonnes
Value: Million Dollars

| | Fruits | | Vegetables | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Production[1/] | 4 | - | 41 | - |
| Imports | 145 | 16.5 | 93 | 9.2 |
| Exports[2/] | 21 | 6.8 | 46 | 6.3 |
| Apparent Consumption | 128 | - | 88 | - |
| Per capita Consumption(kg) | 67 | - | 50 | - |

1/ Department of Agriculture, Singapore.

2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report.

Production. Area under fruit and vegetable crops in Singapore is reckoned at 3,700 hectares, divided almost equally between fruit and vegetable crops. Production of vegetables, however, is ten times as large as that of fruits. It has been estimated that output of fruits and vegetables amounted to 3,850 tonnes and 41,606 tonnes respectively in 1965, with the following break-up:

Output of Fruits and Vegetables 3/

| Crop | 1965 (Tonnes) |
|---|---|
| **Fruits** | **3,850** |
| Rambutans | 1,219 |
| Carambole(Star fruit) | 813 |
| Papayas | 813 |
| Bananas | 305 |
| Durian | 183 |
| Jack fruit | 30 |
| Guavas | 20 |
| Pineapples | 10 |
| Others | 457 |
| **Vegetables** | **41,606** |
| Leafy or Stem vegetables | 10,008 |
| Roots, Bulbs and Tuberous vegetables | 9,246 |
| Others(mainly tomatoes) | 22,352 |

It will be seen from the above table that rambutans and star fruit, which are peculiar to the region, account for more than half of the total fruit production.

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3/ Department of Agriculture, Singapore.

Imports. Total imports of fresh fruits and vegetables into Singapore increased from 228,000 tonnes valued at $ 24.1 million in 1964 to 252,000 tonnes worth $ 27.7 million in 1966. While detailed statistics of imports are given at Volume III, Annexure A-2.20 of the Report break-up by major items is shown below:

Imports of Fresh Fruits and Vegetables

Quantity: Thousand Tonnes
Value: Thousand Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Qty | Val | Qty | Val | Qty | Val |
| Fruits | 138.0 | 15,503 | 151.2 | 16,443 | 138.0 | 17,422 |
| Oranges and Mandarins | 26.1 | 5,755 | 26.7 | 5,579 | 31.2 | 6,576 |
| Bananas and Potatoes | 23.5 | 1,200 | 20.5 | 893 | 19.9 | 752 |
| Apples | 11.9 | 2,505 | 14.1 | 2,890 | 16.1 | 3,281 |
| Grapes | 2.5 | 1,181 | 1.9 | 977 | 2.2 | 1,189 |
| Pineapples | 56.8 | 1,090 | 53.2 | 1,019 | 44.2 | 861 |
| Pears and Quinces | 5.3 | 1,144 | 6.8 | 1,362 | 8.4 | 1,712 |
| Other Fruits | 11.9 | 2,628 | 28.0 | 3,723 | 16.0 | 3,051 |
| Vegetables | 89.5 | 8,557 | 95.9 | 8,688 | 114.3 | 10,309 |
| Potatoes | 27.5 | 1,946 | 29.4 | 2,345 | 35.0 | 2,759 |
| Onions | 19.8 | 1,663 | 19.2 | 1,506 | 21.9 | 1,866 |
| Cabbages | 11.2 | 892 | 11.7 | 894 | 16.6 | 1,294 |
| Tomatoes | 4.3 | 543 | 5.2 | 509 | 7.5 | 711 |
| Other Vegetables | 26.7 | 3,513 | 30.4 | 3,434 | 33.4 | 3,679 |
| | 227.5 | 24,060 | 247.0 | 25,131 | 252.3 | 27,731 |

It will be seen from the above table that oranges and mandarins, apples, pineapples, bananas and plantains, potatoes and onions represent major items of imports. These accounted for 67% of the total imports in terms of quantity, and 58% in terms of value. Shares of different items are shown below:

Shares of Major Commodities in Imports 4/
(1964-66--average)

(Percentage)

| | Quantity Basis | Value Basis |
|---|---|---|
| Fruits | 60 | 64 |
| Oranges and Mandarins | 11 | 23 |
| Apples | 6 | 11 |
| Pears and Quinces | 3 | 6 |
| Pineapples | 21 | 4 |
| Bananas and Plantains | 9 | 4 |
| Grapes | 1 | 4 |
| Other Fruits | 9 | 12 |
| Vegetables | 40 | 36 |
| Potatoes | 12 | 9 |
| Onions | 8 | 7 |
| Cabbages | 5 | 4 |
| Tomatoes | 2 | 2 |
| Other Vegetables | 13 | 14 |
| Total | 100 | 100 |

4/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report.

It is interesting to note that although pineapple is the leading item in terms of quantity, accounting for as much as 21% of the total imports, its share in the value of imports is limited to 4%, no more in fact than that of grapes, whose share in the total quantum of imports is just 1%. This only reflects the wide variation in unit values. Average c.i.f. price of pineapples during 1964-66 was only $ 19 per tonne as against $ 504 per tonne in the case of grapes; in fact, these two items represent two extremes of the scale.

Malaysia claims the largest share in imports in terms of quantity, having accounted for 43% of the total imports during 1964-66. Bulk of Malaysia's exports to Singapore comprise pineapples, bananas and vegetables, which are relatively low priced. This is reflected in the much lower share of Malaysia in the total value of imports, 18% during the above period. China(Mainland) and Australia are leading suppliers, together accounting for 44% of the total value of imports. Shares of major suppliers in the imports are shown below commodity-wise:

(Next page)

## Shares of Major Suppliers in Imports 5/
(1965-66--average)

(Percentages)

Qty = Quantity basis
Val = Value basis

| Commodity | Source of Imports | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | China | | Australia | | Malaysia | | Taiwan | | India | | Others | |
| | Qty | Val | Qty | Val | Qty | Val | Qty | Val | Qty | Val | Qty | Val |
| Oranges and Mandarins | 15 | 13 | 18 | 22 | - | - | 12 | 16 | - | - | 55 | 49 |
| Bananas and Plantains | - | - | - | - | 100 | 100 | - | - | - | - | - | - |
| Apples | 47 | 32 | 34 | 41 | - | - | - | - | - | - | 19 | 27 |
| Grapes | - | - | 32 | 35 | - | - | - | - | - | - | 68 | 65 |
| Pineapples | - | - | - | - | 100 | 100 | - | - | - | - | - | - |
| Pears and Quinces | 57 | 46 | 18 | 26 | - | - | - | - | - | - | 25 | 28 |
| Other fruits | 14 | 23 | 9 | 17 | 57 | 34 | 3 | 2 | - | - | 17 | 24 |
| Potatoes | 34 | 32 | 16 | 16 | - | - | 11 | 11 | - | - | 39 | 41 |
| Tomatoes | 34 | 28 | 5 | 16 | - | - | 50 | 43 | - | - | 11 | 13 |
| Onions | 26 | 18 | 5 | 5 | 1 | 1 | - | - | 55 | 62 | 13 | 14 |
| Cabbages | 68 | 66 | 2 | 5 | - | - | 28 | 28 | - | - | 2 | 1 |
| Other Vegetables | 14 | 16 | 9 | 25 | 68 | 40 | 6 | 8 | - | - | 3 | 11 |
| Total | 20 | 23 | 9 | 21 | 43 | 18 | 6 | 8 | 5 | 4 | 17 | 26 |

5/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report.

One significant inference from the above table will be that Chinese prices are in most cases considerably below average, as is clear from the lower shares in terms of value as compared to shares based on quantity. This is not reflected in the overall share of China, because of the very low unit values of pineapples and bananas which are imported from Malaysia in substantial quantities. On the other hand, Australian prices are consistently higher, as reflected by the higher value-wise shares in respect of different fruits and vegetables. Apart from oranges and mandarins, Taiwan's exports to Singapore comprise mainly vegetables like potatoes, cabbages and tomatoes. India figures nowhere in the imports, excepting onions, where it holds a share of 55% in terms of quantity and 62% in terms of value. Important among other exporters to Singapore are USA, Israel and UAR, which are important suppliers of oranges. Further, Spain is the largest supplier of grapes and Netherlands a major exporter of potatoes to the Singapore market.

Exports. Exports of Singapore, consisting almost entirely of re-exports, averaged 67,000 tonnes valued at $ 13.1 million, during 1964-65. Oranges and apples among fruits, and potatoes and onions among vegetables are the major items of exports. Detailed export statistics are given at Volume III, Annexure A-3.19, of the Report. The extent of re-export trade in different fruits and vegetables can be seen from the following table:

(Next page)

Re-exports as percentage of Imports (quantum)
(1964-66--average)

| | |
|---|---|
| Oranges and Mandarins | 37 |
| Apples | 40 |
| Grapes | 46 |
| Pear and Quinces | 26 |
| Potatoes | 39 |
| Onions | 46 |
| Cabbages | 38 |
| Tomatoes | 38 |

Virtually the entire exports are directed to Malaysia. This clearly brings out the importance of Singapore as a point of entry into the Malayan peninsula.

Channels of Distribution

Importers or agents not having to finance receive 1% commission, while those who offer credit, upto 60 days usually, charge 3%. The distributor's margin normally varies from 7% to 10%, but depending on the market conditions, his financial position and availability of cold storage space, the distributor can sometimes make a profit of 50% or incur a loss of the same magnitude. The wholesaler, who obtains the goods on credit terms from the distributor or the importer is generally satisfied with a margin of 2% to 5%. The retailer's mark-up ranges between 15% and 50%. There are two types of retailers: those who sell by kati (a local measure of about 600 gm) or dozen; and those who sell by the piece. The range of margin is 15-30% in the first category and 25-40% in the second.

Publicity

Press is a popular medium of publicity, but no large scale publicity is in evidence in Singapore for fresh fruits and vegetables.

Import Regulations

There are no restrictions or tariffs on imports of fresh fruits and vegetables into Singapore.

## B. Processed Fruits and Vegetables

Market Size

It has been estimated that per capita consumption of processed fruits and vegetables is about 17 kg; break-up is shown below:

Apparent Consumption of Processed Fruits and Vegetables
(1964-66 - average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Quantity | Value |
|---|---|---|
| Production[7/] | 40 | - |
| Imports[8/] | 71 | 18.6 |
| Exports[8/] | 79 | 18.2 |
| Apparent Consumption | 32 | - |
| Per Capita Consumption (kg) | 17 | - |

7/ Field Survey

8/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, of the Report

Production. About half of the estimated production of 40,000 tonnes comprises canned pineapples, produced mostly in the two large pineapple factories in Singapore; the balance consists mainly of processed vegetables and limited quantities of jams, ready-to-serve beverages, etc. Pineapples are imported from Malaysia for processing, as local production is negligible.

The Singapore Government is keen on developing the local processing industry. A recent measure of protection relates to the imposition of duty on imports of sugar-based products at the rate of $ 0.9 per kg of the sugar-content in the product. Sugar is made available at a concessional rate of $ 0.10 per kg or about half the price otherwise payable, for purposes of processing. The Government also provides a positive incentive for exports by limiting the corporate profit tax to 4% in respect of export earnings, as against 40% on earnings accruing from domestic sales.

Imports. Of the average imports of 71,300 tonnes, as many as 50,400 tonnes represent canned pineapples imported from Malaysia for re-export. Canned fruits and vegetables and fruit and vegetable juices, partly meant for re-export to Malaysia, are important among items constituting the balance. Break-up of imports by major products during 1964-66 is as follows (see Volume IV, Annexure B-2.19, of the Report for details):

(Next page)

## Imports of Processed Fruits and Vegetables

Quantity: Tonnes
Value : Thousand Dollars

| Product | 1964 Quantity | 1964 Value | 1965 Quantity | 1965 Value | 1966 Quantity | 1966 Value |
|---|---|---|---|---|---|---|
| Canned pineapples | 41,402 | 10,161 | 52,423 | 12,750 | 57,252 | 13,864 |
| Other canned fruits | 2,001 | 801 | 2,164 | 834 | 2,511 | 987 |
| Fruits preserved by sugar | 4,324 | 1,277 | 4,586 | 1,617 | 6,306 | 1,869 |
| Pineapple juice - canned | 922 | 159 | 1,013 | 179 | 973 | 181 |
| Tomato juice | 407 | 119 | 287 | 88 | 415 | 117 |
| Other fruit and vegetable juices, concentrated* | 411 | 453 | 512 | 597 | 750 | 914 |
| Other fruit and vegetable juices, diluted* | 647 | 174 | 679 | 177 | 910 | 214 |
| Canned vegetables | 4,834 | 1,383 | 3,914 | 1,562 | 4,485 | 1,864 |
| Others | 5,196 | 898 | 6,581 | 1,238 | 7,940 | 1,433 |
| | 60,144 | 15,425 | 72,159 | 19,042 | 81,542 | 21,443 |

*Quantities given in terms of volume in the official statistics have been converted into weight, on the basis of 1 gallon = 5 kg.

Leaving aside canned pineapples and pineapple juice imported entirely from Malaysia, which account for 72% in terms of quantity and 67% in terms of value, China and Australia are leading suppliers of canned fruits, USA of fruit and vegetable juices and UK of canned vegetables. Shares of major suppliers in the imports are shown below:

(Next page)

Shares of Major Suppliers in Imports (Value)[10/]
(1964-66 - average)

(Percentages)

| Supplier | Share in Total Imports | Share in Imports exclusive of Pineapple Products |
|---|---|---|
| Malaysia | 67 | 1 |
| China | 13 | 39 |
| UK | 5 | 14 |
| USA | 4 | 13 |
| Australia | 2 | 6 |
| Japan | 1 | 2 |
| Others | 8 | 25 |
| | 100 | 100 |

Exports. About 80% of the exports (in terms of value) of Singapore comprise canned pineapples, mostly imported from Malaysia for re-export, but partly representing local production. The balance consists mainly of re-exports to Malaysia of imported canned fruits and vegetables, fruit and vegetable juices, etc. While detailed export statistics are given at Volume IV, Annexure B-3.18, of the Report, the following table gives a broad break-up of exports:

(Next page)

10/ Basic Statistics on Processed Fruits and Vegetables of Survey Countries, Volume IV, of the Report.

## Exports of Processed Fruits and Vegetables

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Processed Fruits (mostly canned pine-apples) | 53.0 | 13.6 | 66.8 | 16.9 | 57.1 | 14.3 |
| Processed Vege-tables | 24.6 | 3.6 | 22.4 | 3.7 | 13.0 | 2.6 |
| Total | 77.6 | 17.2 | 89.2 | 20.6 | 70.1 | 16.9 |

UK is the traditional and principal market for canned pineapple exports from Singapore, absorbing 34% of the total shipments during 1964-66; other important markets are USA 19%, West Germany 13% and Canada 12%. The balance 22% is spread over a large number of countries.

## Channels of Distribution

Agents normally receive a commission of 5%. Mark-up varies around 15% at the wholesaler level and 20% at the retailer level.

## Publicity and Sales Promotions

Press, cinema slides, radio, display racks and hoardings are popular media of publicity and are extensively used for promoting sales. Giveaways such as calendars, trays and large polythene bags are very common. Gimmicks like offering one small can free for every two large cans purchased are widely employed, especially for promoting new products. Most of the publicity and promotion expenses incurred by the agent are met by the exporter, the proportion

varying according to agency terms agreed upon. Many exporters allocate 5 to 10% of the turnover for publicity and promotion, which play a vital role in stepping up exports.

Import Regulations

There are no restrictions on imports of processed fruits and vegetables. Sugar-based products are subject to a duty of $ 0.09 per kg. of the sugar content in the product.

## 5.22 MALAYSIA

### Background

Malaysia, with a population of 9.5 million is five times the size of Singapore, and much larger in geographical area. Agriculture, including forestry and fishery, is the mainstay of the economy of Malaysia, mining (tin) being the most important among other sources of income. The per capita income of Malaysia at about $ 300 is quite low as compared to that of Singapore, but Malaysia is among the relatively affluent countries of South East Asia. The Malaysian economy has been expanding at a fairly rapid rate of 7% during the past six years.

Malaysia is one of the largest exporters of canned pineapples to world markets, but processing outside pineapples is very limited. The climate being strictly tropical, requirements of temperate fruits are entirely met through imports. Additionally, oranges, mandarins, potatoes and onions figure prominently in Malaysia's imports of fruits and vegetables. Bulk of the imports of fresh fruits and vegetables are routed through Singapore, while processed products are generally imported direct. Malaysia, like Singapore, has been traditionally a major market for Indian onions.

### A. Fresh Fruits and Vegetables

### Market Size

Production of fresh fruits and vegetables in Malaysia may be placed at one million tonnes. Imports

CAMBODIA
VIETNAM
THAILAND (SIAM)
PHILIPPINES
SOUTH CHINA SEA
ALOR STAR
KOTA BHARU
GEORGE TOWN
KUALA TRENGGANU
PENANG
MALAYA
IPOH
KUALA LUMPUR
KLANG
PORT SWETTANHAM
MALACCA
JOHORE BARU
SINGAPORE
SUMATRA
KUDAT
JESSELTON
SANDAKAN
LAHAD DATU
BRUNEI
SABAH (NORTH BORNEO)
KALABAKAN
SERIA
SARAWAK
BINTULU
SIBU
KAPIT
KABONG
KUCHING
BORNEO
INDONESIA

are more or less evened out by exports, being of the order of 100,000 tonnes. The following table shows that apparent cansumption of fresh fruits and vegetables during 1965-66, may be reckoned at 998,000 tonnes and 105 kg per capita.

Apparent Consumption of Fresh Fruits and Vegetables
(1965-66 average)

Quantity: Thousand Tonnes
Value : Million Dollars

| | Quantity | Value |
|---|---|---|
| Production[1] | 1,000 | - |
| Imports[2] | 109 | 18.1 |
| Exports[2] | 111 | 4.8 |
| Apparent Consumption | 998 | |
| Per Capita Consumption (in kg) | 105 | |

Production. Production of pineapples and bananas averaged 228,000 tonnes and 321,000 tonnes respectively during 1964-66. Statistics on production of other fruits and vegetables are not available, but total output has been estimated at one million tonnes. About 50% of the pineapples produced are utilised for processing and about 20% are exported to Singapore, the

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1/ Field Survey

2/ Basic Statistics on Fresh Fruits and Vegetables of Survey Countries, Volume III of the Report

balance 30% representing local consumption in fresh form.

Imports. Imports of fresh fruits and vegetables averaged 108,900 tonnes valued at $ 18.1 million during 1965-66. Oranges and apples among fruits, and potatoes and onions among vegetables are leading items of imports. Break-up of imports by major commodities is shown below (see Volume III, Annexure A-2.21 for details):

Imports of Fresh Fruits and Vegetables

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Oranges and Mandarins | 10,428 | 3,041 | 12,188 | 3,268 |
| Apples | 5,480 | 1,535 | 6,627 | 1,694 |
| Grapes | 1,085 | 621 | 1,193 | 676 |
| Pears and Quinces | 1,835 | 508 | 2,802 | 697 |
| Other Fresh Fruits | 1,453 | 321 | 2,379 | 343 |
| Dried Fruits | 3,883 | 1,709 | 4,153 | 1,587 |
| Potaotes | 20,261 | 1,784 | 21,397 | 1,793 |
| Onions | 20,147 | 2,192 | 28,378 | 2,810 |
| Cabbages | 5,733 | 515 | 6,630 | 611 |
| Tomatoes | 1,927 | 251 | 2,583 | 272 |

Contd....

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Other Fresh Vegetables | 6,105 | 1,248 | 7,062 | 1,301 |
| Dried Vegetables | 21,037 | 3,653 | 23,103 | 3,794 |
| Total | 99,374 | 17,378 | 118,495 | 18,846 |

China is the largest supplier of fresh fruits and v getables to Malaysia, accounting for 32% of the total imports in terms of quantity and 28% in terms of value, during 1965-66. Australia, the second largest supplier, accounted for 9% of the total quantity imported, but claimed a much higher share of 16% in terms of value. Other suppliers include Taiwan, USA, Thailand, Netherlands and India.

Australia and China (Mainland) are leading suppliers of oranges, followed by Israel, USA and Taiwan. Mandarins come mostly from China and Taiwan. Australia and China together account for nearly 90% of the total imports of apples. Spain is the premier supplier of grapes accounting for 50% of the total imports, Australia and USA supplying about 40% and 10% of the requirements respectively. China doubled its exports of pears and quinces to Malaysia between 1965 and 1966, claiming a share of 69% of the market in the latter year; Japan and Australia are other important suppliers. China is also the largest supplier of dried fruits to Malaysia.

China and Netherlands are leading exporters of potatoes to Malaysia, accounting for 45% and 27% respectively of the total requirements; Taiwan and UAR are other sources of importance. India is the chief supplier of onions, accounting for 76% of the total imports, the share of China being 17%. Vegetables like cabbages and tomatoes come mostly from China and, to a lesser extent, Taiwan. Most of the dried vegetables are supplied by China; Thailand is important among other suppliers.

Exports. Exports of fresh fruits and vegetables averaged 110,700 tonnes valued at $ 4.8 million during 1965-66. Detailed export statistics given at Volume III, Annexure A-3.20 may be summarised as follows:

Exports of Fresh Fruits and Vegetables

Quantity: Thousand Tonnes
Value : Million Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Pineapples | 53.2 | 1,019 | 44.2 | 861 |
| Bananas and Plantains | 20.5 | 893 | 19.9 | 752 |
| Other Fruits | 19.9 | 1,637 | 8.4 | 962 |
| Vegetables | 26.4 | 1,825 | 29.0 | 1,674 |
| Total | 120.0 | 5,374 | 101.5 | 4,249 |

It will be seen that pineapples and bananas accounted for 62% of the total exports in terms of quantity during 1965-66, although their share in terms of value was lower at 37%. More than 95% of the exports in all cases are directed to Singapore.

Channels of Distribution

Most wholesalers obtain their supplies from distribution centres based in Singapore. Mark-up varies around 5% at the wholesaler level and 25% at the retailer level.

Publicity

No large publicity is carried out for fresh fruits and vegetables in Malaysia.

Import Regulations

There are no restrictions on imports of fresh fruits and vegetables. Imports are regulated through tariffs, most items being subject to a duty of $ 108 per tonne. There are no preferential tariffs for fresh fruits and vegetables. Details of tariffs are given at Volume V, Annexure VII(r), of the Report.

## B. Processed Fruits and Vegetables

Market Size

Processing of fruits and vegetables in Malaysia is mostly confined to pineapples, and almost the entire output is exported. Thus domestic consumption may be almost

equated with imports. On this basis, per capita consumption works out to 2 kg in Malaysia, which is far lower than the level of 17 kg in Singapore.

Apparent Consumption of Processed Fruits and Vegetables
(Average for 1956 and 1966)

| | Quantity (Thousand Tonnes) | Value (Million Dollars) |
|---|---|---|
| Production[3] | 60 | - |
| Imports[4] | 18 | 5.1 |
| Exports[4] | 57 | 14.0 |
| Apparent Consumption | 21 | |
| Per Capita Consumption (kg) | 2 | |

Production. About half the production of fresh pineapples is used for processing. Malaysia is a leading supplier of canned pineapples to world markets. The pineapples industry is regulated by the powerful Malaysian Pineapple Industry Board and the Pineapple Industry Marketing Corporation, the latter exercising a thorough control over exports. The Malaysian pineapple industry is discussed in detail elsewhere in the Report (page 417 of Volume I, Part B, of the Report).

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3/ Field Survey
4/ Basic Statistics on Processed Fruits and Vegetables, Volume IV of the Report

Imports. Imports of processed fruits and vegetables into Malaysia averaged 18,000 tonnes valued at 5.1 million during 1965-66. Canned vegetables are the largest item of imports, claiming a share of 30% of the total value of imports. Vegetable preparations not canned, concentrated fruit and vegetable juices and canned fruits in syrup are other items of importance, accounting for a further 50%. Break-up of imports by major items is shown below (see Volume IV, Annexure B-2.20 of the Report, for details).

Imports of Processed Fruits and Vegetables

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | 1966 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Canned fruits in syrup | 2,138 | 749 | 2,012 | 778 |
| Fruits and fruit peels preserved by sugar | 500 | 183 | 593 | 208 |
| Jams, marmalades etc. | 853 | 347 | 911 | 340 |
| Tomato juice | 232 | 78 | 242 | 69 |
| Fruit and vegetable juices diluted | 373 | 94 | 258 | 67 |
| Fruit and vegetable juices concentrated | 1,243 | 696 | 1,941 | 1,029 |
| Vegetable preparations canned | 4,157 | 1,434 | 4,660 | 1,636 |
| Vegetable preparations not canned | 7,217 | 1,005 | 6,453 | 853 |
| Others | 1,204 | 332 | 980 | 284 |
| Total | 17,917 | 4,918 | 18,050 | 5,264 |

Exports. Exports of processed fruits and vegetables from Malaysia, mostly routed through Singapore, averaged 57,300 tonnes value at $ 14.0 million during 1965-66. More than 98% of the exports comprise canned pineapples, canned pineapple juice accounting for another 1%. UK, USA, West Germany and Canada are the chief importers of Malaysian canned pineapples; direction of exports during 1965-66 is shown below (see Volume IV, Annexure B-3.19 of the Report for details):

Exports of Canned Pineapples

Quantity: Tonnes
Value : Thousand Dollars

| | 1965 | | | | 1966 | | | |
|---|---|---|---|---|---|---|---|---|
| | Quantity | % | Value | % | Quantity | % | Value | % |
| UK | 12,691 | 23.6 | 3,109 | 23.8 | 19,088 | 32.4 | 4,696 | 32.9 |
| USA | 11,169 | 20.7 | 2,951 | 22.5 | 13,110 | 22.2 | 3,216 | 22.6 |
| West Germany | 9,470 | 17.6 | 2,338 | 17.9 | 5,591 | 9.5 | 1,320 | 9.3 |
| Canada | 7,828 | 14.5 | 1,645 | 12.6 | 7,724 | 13.1 | 1,842 | 12.9 |
| New Zealand | 2,416 | 4.5 | 606 | 4.6 | 2,228 | 3.8 | 543 | 3.8 |
| Saudi Arabia | 1,590 | 3.0 | 356 | 2.7 | 1,117 | 1.9 | 249 | 1.7 |
| Netherlands | 888 | 1.7 | 215 | 1.6 | 759 | 1.3 | 187 | 1.3 |
| Others | 7,814 | 14.4 | 1,870 | 14.3 | 9,344 | 15.8 | 2,203 | 15.5 |
| Total | 53,866 | 100.0 | 13,090 | 100.0 | 58,961 | 100.0 | 14,256 | 100.0 |

The remarkable uniformity in fruit values in respect of different destinations as indicated by the close agreement between shares in terms of quantity and value of exports is noteworthy.

Channels of Distribution

Agents in Malaysia representing foreign exporters usually receive a commission of 5%. Direct importers as well as wholesalers retain a margin of about 15%. The retailer's mark-up varies around 25%.

Publicity and Promotion

Press, display racks, hoardings and radio are widely used for publicity, and also television to a limited extent. Giveaways like calendars and trays are very common for promoting products. Publicity and promotion expenses incurred by the agent are shared by the exporter, according to agreed terms.

Import Regulations

Imports of processed fruits and vegetables are regulated through high tariff rates. For instance, canned fruits (other than pineapples in syrup are subject to a tariff of $ 180 per tonne, although a lower preferential rate of $ 72 is applicable for members of Commonwealth like India. But there is no difference between general and preferential tariffs in the case of items like jams. Similarly, all imports of diluted juices attract a duty of 30% ad valorem. Details of import tariffs are provided at Volume V, Annexure VII(r), of the Report.

# ANNEXURES

Annexure B-1

## PRODUCTION OF BANANAS IN DIFFERENT COUNTRIES

(Thousand Tonnes)

| Country | 1963 | 1964 | 1965 |
|---|---|---|---|
| Spain | 341 | 364 | 372 |
| Costa Rica | 466* | 486 | 567* |
| Dominican Republic | 389* | 350* | 318* |
| Guadeloupe | 163 | 60 | 165 |
| Guatemala | 154* | 124F | 90F |
| Haiti | 225F | 225F | 225F |
| Honduras | 801 | 831 | 850F |
| Jamaica | 281 | 290 | 327 |
| Martinique | 130 | 120 | 220 |
| Mexico | 413 | 421 | 426 |
| Panama | 422* | 485* | 583* |
| Puerto Rico | 119 | 107 | 118 |
| Brazil | 4,070F | 4,397F | 4,531F |
| Colombia | 573* | 895* | 965* |
| Ecuador | 2,098 | 3,300 | 3,300 |
| Paraguay | 196 | 195 | 200F |
| Venezuela | 1,456 | 1,203 | 1,230 |
| Cambodia | 150 | 160 | 160F |
| Taiwan | 132 | 268 | 452 |
| India | 2,601 | 2,670 | 2,700F |
| Malaysia | 336* | 328* | 332* |

| Country | 1963 | 1964 | 1965 |
|---|---|---|---|
| Pakistan | 1,212 | 1,200 | 1,150 |
| Philippines | 755 | 685 | 700F |
| Thailand | 796 | 743 | 750F |
| Vietnam Republic | 186 | 237 | 208 |
| China (Mainland) | 150F | 160F | 170F |
| Central African Republic | 170F | 170F | 170F |
| Ivory Coast | 168 | 135 | 138 |
| Madagascar | 145 | 150 | 155 |
| Somalia | 126 | 140 | 157 |
| Australia | 135 | 128 | 117 |
| Others | 1,044 | 1,062 | 1,178 |
| World Total | 20,408 | 22,089 | 23,024 |

* Unofficial figures

F FAO Estimates

Source: Production Year Book, Vol 20, FAO, Rome, 1966.

Annexure B-2

## WORLD EXPORTS OF BANANAS DURING 1955-57, 1961-63 AND 1964 TO 1966

(Thousand Tonnes)

| Country | 1955-57 (Average) | 1961-63 (Average) | 1964 | 1965 | 1966 (Preliminary) |
|---|---|---|---|---|---|
| Ecuador | 661.8 | 1,141.8 | 1,382.7 | 1,200.0 | 1,264.8 |
| Brazil | 205.8 | 222.7 | 225.5 | 215.8 | 230.0 |
| Colombia | 203.2 | 185.1 | 171.6 | 253.5 | 310.0 |
| Costa Rica | 290.9 | 261.8 | 293.7 | 312.2 | 340.0 |
| Dominican Republic | 45.7 | 154.3 | 69.1 | 48.0 | 25.0 |
| Guatemala | 129.7 | 125.0 | 94.4 | 34.1 | 47.0 |
| Honduras | 317.6 | 384.1 | 349.0 | 571.6 | 700.0 |
| Panama | 271.4 | 273.5 | 266.6 | 355.5 | 420.0 |
| Others | 43.9 | 53.2 | 69.3 | 58.2 | 76.2 |
| Total Latin America | 2,170.0 | 2,801.5 | 2,921.9 | 3,028.9 | 3,413.0 |
| Caribbean* | 342.8 | 521.2 | 459.5 | 598.9 | 678.0 |
| Cameroon | 75.8 | 102.2 | 115.7 | 119.1 | 80.0 |
| Ivory Coast | 28.7 | 116.0 | 125.9 | 128.3 | 120.0 |
| Spain (Canary Islands)* | 260.8 | 303.8 | 348.2 | 348.8 | 390.0 |
| China (Taiwan) | 18.5 | 64.7 | 209.3 | 335.0 | 370.2 |
| All others | 339.8 | 343.9 | 313.9 | 337.5 | 309.1 |
| World total (Excl. China (Mainland) | 3,236.4 | 253.3 | 4,494.4 | 4,896.5 | 5,360.3 |
| China (Mainland) | 16.0 | 10.8 | 17.0 | 19.0 | - |

* Destemmed fruit basis

Source: FAO Monthly Bulletin, Vol. 15.No.6, 1966

Annexure B-3

## WORLD IMPORTS OF BANANAS DURING 1955-57, 1961-63 AND 1964 TO 1966

(Thousand Tonnes)

| Country | 1955-57 (average) | 1961-63 (average) | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|
| Belgium-Luxemburg | 53.5 | 66.8 | 67.9 | 79.7 | 95.0 |
| France | 282.2 | 375.6 | 352.7 | 399.3 | 458.7 |
| Federal Republic of Germany | 286.8 | 471.7 | 487.0 | 585.0 | 606.2 |
| Italy | 45.2 | 133.7 | 163.6 | 316.8 | 322.1 |
| Netherlands | 40.2 | 70.1 | 68.1 | 81.3 | 99.1 |
| Total EEC | 707.9 | 1,117.91 | 1,139.3 | 1,462.1 | 1,581.6 |
| Scandinavia* | 93.4 | 113.2 | 121.2 | 135.6 | 143.5 |
| United Kingdom | 316.9 | 369.7 | 352.5 | 376.3 | 372.7 |
| Others | 230.8 | 349.0 | 397.3 | 44.2 | 520.9 |
| Total Western Europe | 1,349.0 | 1,949.8 | 2,010.3 | 2,419.2 | 2,618.7 |
| United States* | 1,275.6 | 1,418.4 | 1,448.3 | 1,565.3 | 1,685.8 |
| Canada* | 111.4 | 134.8 | 152.3 | 165.7 | 175.0 |
| Argentina | 164.0 | 183.8 | 167.0 | 195.1 | 180.0 |
| Chile | 13.7 | 35.6 | 30.0 | 35.0 | 64.0 |
| Japan | 23.8 | 137.4 | 351.8 | 357.6 | 440.0 |
| All others | 113.0 | 195.9 | 208.4 | 194.7 | 228.4 |
| World total (excl. U.S.S.R.) | 3,050.5 | 4,055.7 | 4,368.1 | 4,932.6 | 5,391.9 |
| U.S.S.R. | 2.4 | 20.5 | 18.2 | 23.4 | - |

* Destemmed fruit basis

Source: FAO Monthly Bulletin, Vol. 16 No.2, 1967

## ESTIMATE OF IMPORT DEMAND OF BANANAS BY 1970

| Country | Total imports in 1965 | Per caput imports in 1965 | Expected population growth to 1970 (compound rate per year) | Expected increase in per caput income (compound rate) | Income elasticity | Price elasticity | Estimated import demand by 1970[a] I At constant prices | | II 10% fall in real prices | | III 20% fall in real prices | | IV 30% fall in real prices | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | per caput | total | per caput | total | per caput | total | per caput | total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
| | Thousand Tonnes | Kg | | | | | Kg | Thousand Tonnes | Kg | Thousand Tonnes | Kg | Thousand Tonnes | Kg | Thousand Tonnes |
| **European Economic Community** | **1441.0** | | | | | | | **1625.5** | | **1755.2** | | **1880.2** | | **2022.7** |
| **Belgium-Luxemburg** | **375.0** | **7.7** | **0.5** | **3.0** | **0.8** | **- 0.6** | **8.7** | **86.5** | **9.1** | **90.8** | **9.6** | **96.2** | **10.3** | **102.4** |
| **France** | **430.0** | **8.8** | **0.7** | **3.0** | **0.7** | **- 0.6** | **9.8** | **493.6** | **10.3** | **519.0** | **10.9** | **550.4** | **11.6** | **586.1** |
| Federal Republic of Germany | 580.0 | 9.8 | 0.5 | 3.0 | 0.6 | - 0.7 | 10.7 | 650.0 | 11.4 | 691.4 | 12.2 | 740.0 | 13.1 | 795.8 |
| Italy | 275.0 | 5.1 | 0.6 | 3.0 | 1.0 | - 1.0 | 6.3 | 328.0 | 6.8 | 355.0 | 7.4 | 388.3 | 8.1 | 426.3 |
| Netherlands | 81.0 | 6.8 | 1.0 | 3.0 | 0.7 | - 0.6 | 6.8 | 94.4 | 7.1 | 99.0 | 7.5 | 105.3 | 8.0 | 112.1 |
| **United Kingdom** | **400.0** | **7.3** | **0.4** | **2.8** | **0.8** | **- 1.0** | **8.2** | **445.6** | **8.8** | **495.6** | **9.7** | **544.0** | **10.7** | **598.4** |
| **Scandinavia** | **141.0** | | | | | | | **164.8** | | **173.7** | | **184.8** | | **197.3** |
| Denmark | 35.0 | 7.3 | 0.6 | 3.0 | 0.8 | - 0.6 | 8.2 | 40.6 | 8.6 | 42.6 | 9.1 | 45.2 | 9.7 | 48.0 |
| Finland | 16.0 | 3.5 | 0.9 | 3.0 | 1.0 | - 1.0 | 4.1 | 19.4 | 4.4 | 221.0 | 4.8 | 22.9 | 5.3 | 25.2 |
| Norway | 30.0 | 8.1 | 0.9 | 3.0 | 0.8 | - 0.6 | 9.1 | 35.3 | 9.6 | 37.1 | 10.1 | 39.3 | 10.8 | 41.8 |
| Sweden | 360.0 | 7.8 | 0.6 | 3.0 | 0.8 | - 0.6 | 8.8 | 69.5 | 9.2 | 73. 0 | 9.8 | 77.4 | 10.4 | 82.3 |

Contd.....2

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Austria | 44.0 | 6.1 | 0.1 | 3.5 | 0.8 | - 0.6 | 7.0 | 50.8 | 7.3 | 53.1 | 7.8 | 56.2 | 8.2 | 59.8 |
| Switzerland | 55.0 | 9.0 | 1.0 | 2.5 | 0.8 | - 0.6 | 9.9 | 63.8 | 10.4 | 67.1 | 11.1 | 71.2 | 11.8 | 75.8 |
| Rest of Western Europe | 291.0 | 5.5 | 0.5 | 3.5 | 1.0 | - 0.8 | 6.5 | 354.4 | 6.9 | 374.5 | 7.4 | 403.0 | 8. 0 | 434.5 |
| North America[b] | 2010.0 | 9.4 | 1.4 | 2.3 | 0.1 | - 0.5 | 9.5 | 2178.8 | 10.0 | 2293.4 | 10.6 | 2420.0 | 11.2 | 2528.8 |
| South America | 236.0 | 5.5 | 2.7 | 2.0 | 0.5 | - 0.6 | 5.8 | 283.2 | 6.1 | 299.7 | 6.5 | 318.8 | 6.9 | 340.3 |
| North Africa and Near East | 65.0 | 1.0 | 2.0 | 2.0 | 2.0 | - 1.0 | 1.2 | 87.5 | 1.3 | 93.5 | 1.4 | 102.0 | 1.6 | 111.6 |
| Japan | 370.0 | 3.7 | 0.9 | 5.5 | 1.5 | - 1.0 | 5.5 | 578.3 | 5.6 | 583.1 | 6.0 | 629.0 | 6.5 | 680.8 |
| Rest of the world[c] | 60.0 | 8.5 | 2.5 | 1.5 | 0.4 | - 0.7 | 8.8 | 69.9 | 9.4 | 74.9 | 10.1 | 80.5 | 10.9 | 86.9 |
| Total | 5113.0 | | | | | | | 5939.6 | | 6263.8 | | 6689.7 | | 7170.9 |

[a] Excluding U.S.S.R. and Eastern Europe and a number of minor importing countries for which data were not available - Estimates based on semilogarithmic relationship

[b] Converted to on-stem basis

[c] Monthly New Zealand and Hong Kong

Source: FAO Monthly Bulletin Vol 16. No.2, 1967

Annexure B-5

# BANANA INDUSTRY IN SOMALIA+

## Background

Banana is by far the most important crop of Somalia. It is the chief source of revenue for the Somali Government, and in 1963 banana exports accounted for 45 per cent of the total export earnings. About one quarter of the settled population of Somalia depends upon the banana industry. Banana producers are organised in two groups, the Societa Anonima Cooperativa Agricola (SACA) representing the Afgoi-Genale area, and the Societa Agricoltori Giuba (SAG), composed of farmers from the Giuba region. Both Somali and European growers are members of these cooperatives.

## Production and Exports

The latest production and export figures of the Ministry of Agriculture, from 1960, are given below:

Banana Production and Exports

(Tonnes)

| Year | Production | Exports |
|---|---|---|
| 1960 | 91,000 | 74,000 |
| 1961 | 98,000 | 84,000 |
| 1962 | 107,000 | 76,000 |
| 1963 | 126,000 | 95,000 |
| 1964 | 140,000 | 100,000 |
| 1965 | 157,000 | 100,000 |

In the past, the Italian State Monopoly (AMB) has purchased almost the entire exportable supply. When the monopoly came to an end in January 1965, the Italian

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*Excerpts from 'Report to the Government of Somalia on Banana Production', FAO, Rome, 1966

Government met its obligations arising from its agreement with the Government of Somalia by establishing a special quota of 100,000 tonnes for the importation of bananas from Somalia for the year 1965. Under this arrangement Somalia enjoys a tax preference of 30 lire/kilogram ($ 48/tonne) over other countries and territories associated with the European Economic Community, and of almost 50 lire ($ 75/tonne) over other countries and territories. This tax preference will probably only continue until the end of 1966. Thus the Somali banana industry will shortly be facing a competitive export market.

Method of cultivation

Ecological Conditions. In the banana areas, the temperature is fairly uniform throughout the year, averaging from 25 to 30°C. In the Genale area, based on average figures, the monthly maximum temperature varies from 28° to 34°C; the monthly minimum from 22° to 25°C; the average daily maximum from 26° to 31°C, and the average daily minimum from 22° to 27°C. The relative humidity varies from about 55% to 95%, with a monthly average ranging from 72% to 80%. The average annual rainfall amounts to 450 mm. The rains occur during April, May, June and September/October. The wind is never strong enough to cause heavy losses in the banana plantations.

The soils of the Genale-Afgoi banana region are deep alluvial, from rich to very rich. Some are light and permeable, others heavy with impeded drainage. Some of these soils have been cropped with banana, and have given high yields without addition of manure or fertilizers for many years.

It is concluded, contrary to what has been stated recently in several reports, that the ecological conditions of the Genale-Afgoi region are very good and among the best in the world for banana growing. Water for irrigation is readily available by gravitation or by pumping from the Shebeli river. Underground water is abundant and generally sweet, and water from wells is used only for one or two months, and not every year, when the Shebeli is dry.

Large areas around Genale-Afgoi are still available for banana growing. The conditions there are so suitable for bananas that, if the banana trade remained favourable, the production of the Genale-Afgoi region could be tripled within a very few years.

Present Banana Production Methods

In the past, the banana growers of Somalia did not apply the cultural techniques of the more advanced production areas of the world. Very recently the Technical Officers of SACA and SAG started giving advice to farmers on the basis of the recommendations in Bigi's report.+

The following paragraphs give a short account of the methods recommended by SACA to the growers. The change over to new methods was not easy. At present many farmers understand the need for improvement, and are now seriously starting to follow the advice.

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+BIGI, F. et al. 1960 Relazione del Viaggio di Studi Riguardanti la Coltivazione del Banano e di Altre Piante Tropicali nella Guinea, Costa d'Avorio, Giamaica, Colombia, Ecuador, Stati Uniti d' America. Relazioni e Monografie Agrarie Subtropicali e Tropicali, No. 79, Instituto Agronomico per l'Oltremare, Firenze. 261 p.

Varieties. Until 1960, the Giuba variety (Dwarf Cavendish) was grown exclusively in the Somali Republic. In the following years, the Poyo, introduced probably in the nineteen-thirties, was reintroduced from the Ivory Coast, but the farmers were reluctant to grow it.

The banana monopoly in Italy prevented any competition and made possible the survival of the Giuba banana, which is small, thin skinned and very susceptible to bruising.

With the abolition of the Italian monopoly at the beginning of 1965, the banana growers were faced with an extremely serious problem : they had to decide to change from the Giuba variety to a more resistant one, the Poyo, in a very short time, in order to be able to compete on the world market, as soon as the tax preference in Italy was abolished. The change to the Poyo was slow at the beginning of 1965, but at the end of the year, through the joint action of SACA and ComAfrique, a company importing bananas into Europe, a very quick change occurred and even the most conservative farmers, who in 1965 were still insisting on planting 'Giuba', are now abandoning it. At present all farmers are planting only 'Poyo'. Nurseries were established for the rapid multiplication of the new variety. It is anticipated that within about two years only Poyo bananas will be exported from Somalia.

The Poyo, together with the Lacatan, are at present among the main varieties on the world market.

It therefore appears that the banana producers of Somalia have been realistic and that, insofar as the variety is concerned, they are now prepared to face a competitive export market.

Plant Spacing. In the past, and until very recently, the spacing used has been much too wide, especially for the Poyo. Spacings of 4 x 4 m, 4 x 3 m, and 3 x 3 m were common. Following the advice of SACA, most of the farmers are now planting on the square with a 2.2 x 2.2 m spacing. There is even a tendency to plant at 2 x 2 metres.

Type of Planting Material. Strong sword suckers from four to five months old are generally used as planting material.

Pruning (desuckering) and Propping. Pruning is generally properly done "on one sucker". This means that, at the same time and on the same corm, there are not more than three pseudostems : one adult about ready for harvest, one half grown, and a third just emerging from the ground.

Propping the bunches is a necessity, especially for the Poyo variety but is not practised. This results in a considerable loss of bunches.

Weeding. Weeding is generally carried out several times after planting with a "rotavator" drawn by a small tractor. After a few months the banana leaves shade the ground and hardly any weeds grow.

Irrigation and Drainage. Basin irrigation is the system employed. Each flooded unit or basin contains an average of 36 banana corms. The interval between irrigations is said to vary from 10 to 25 days according to the physical qualities of the soil. No information seemed to be available regarding the volume of water applied at each irrigation.

Drainage was reported to be insufficient in many plantations on heavy soils.

Manuring and Fertilization. Organic matter has never been applied to the banana plantations in the Genale region.

According to information received from SACA, the average amount of fertilizers applied has been 200 kg/ha/year during the past few years. Three formulas of N-P-K are applied indifferently, i.e. 13-13-20, 15-15-6 and 15-15-15.

The Technical Office of SACA is now recommending the following:

- N-P-K : 10-5-15, to be applied once a year;
- Urea (46% N), to be applied every month;
- Amount : from 300 to 400 kg of N-P-K ha/year
  600 kg of urea ha/year

Time of Planting and Longevity of Plantations. Most banana farmers plant a section of their land each month so as to harvest bananas all the year round. Some are planting more in May and June in order to have a higher production in the following April, which is the season for high banana prices in Europe.

The average longevity of a plantation is five years. In very good soil, some plantations are kept for 10 years. SACA recommends the renewal of plantations every three to four years.

Disease and Pest Control. The Sigatoka disease is present in Somalia, but the fungus (Cercospora) is kept down by the absence of a long and continuous rainy season. SACA had to intervene only once, in 1963, after an unusually long and heavy rainy seasons, by using air fungicide treatments. Cosmopolites is controlled by application of aldrine or gammexane to the soil. For the control of nematodes, the suckers are dipped in an emulsion of nematocide (Nemagon) before planting.

## Recommendations of the FAO for the Improvement of Banana Production in Somalia

Varieties. The Poyo, now adopted in all new plantations, is adequate for the world market. However, there is a need to assemble in one collection the different strains of Poyo brought into Somalia from different places for the purpose of comparison and evaluation. Other clones, such as Giant Dwarf, Lacatan, Valery, should also be tested.

Irrigation and Drainage. There is a need for considerable improvement and for research in the methods of irrigation, in the timing of application and the volume of water. Attention should be paid to the salinity of water from wells.

Drainage is an important problem in many soils of Genale area, and requires investigation by a specialist.

Fertilization. The fertilizer formulas used by the banana producers in Somalia are entirely empirical. The Technical Office of SACA started some trials. However, its staff is engaged in extension work only; it has no research section.

Disease and Pest Control. Nematodes are likely to cause more damage as banana cropping becomes more intensive. Methods of control should be adjusted to the new situation.

Pests and diseases might produce sudden problems, as was the case for Sigatoka disease in 1963.

Yield. The improvement of irrigation, drainage, fertilization and pest control could increase average yields from the present estimated 12 tons/hectare to approximately 30 tons/hectare.

Present Methods of Harvesting, Handling, Packing and Transport of Bananas in Somalia

Harvesting. The fitness of the banana bunch for harvesting is decided by measurement of the cross section of the bananas with special calipers.

The banana bunch is cut from the plant and carried by porters, using back cradles covered with cushions, from the plantation to a trailer pulled by a tractor. On the trailer, the bunches are separated from each other by layers of banana trash or by nylon sponges. The tractor brings them to the packing station.

Handling and Packing. The Giuba variety is packed in parcels. As previously explained this variety is not competitive on the world market, and is now being replaced by the Poyo.

With the technical help of ComAfrique, SACA is building modern banana packing stations, with a view to packing 'Poyo' in carton boxes. The construction of these stations was started in September 1965. By April 1966, five stations were already in operation and another seven were expected to be completed by the end of 1966.

At the packing station, the bananas are being given the following treatments in a continuous line:

- handing the bunch;
- checking the diameter of the fingers with calipers;
- removing the dried perianths from the top of the fingers;
- cutting the bunches into hands;
- washing the hands in a tank with running water;

- dipping the hands in a dithane emulsion;
- treating the cut surfaces of the "stalk" of the hands with a fungicide-bactericide (Sovigol);
- weighing out lots of 17.3 kg net of hands;
- putting the wet hands in carton boxes;
- loading the carton boxes on a lorry.

The cost of these operations is said to be about 0.25 US cents per kg. One carton costs about 45 US cents.

The quick shift from the Giuba to the Poyo variety, the rapid construction of packing stations and the adoption of u-to-date methods of treatment and packing of bananas are the two main factors which are bringing the Somali bananas to a competitive level with other producing countries.

Transport. Lorries carry the packed bananas from the packing station to the port. The production of the Genale-Afgoi region goes through the port of Merca. There are no good facilities for banana boats at Merca, and the cargo must first be loaded on lighters which transport them to the banana boat at anchor out at sea.

Returns to Farmers. The cost of production of bananas "at farm gate" in the Genale-Afgoi region is estimated to be US $ 28 per ton.

In April 1966, the producer members of SACA received net "at farm gate", US $ 25 per ton for the Giuba and US $ 90 for the Poyo. Therefore, the Giuba is now produced at a loss and the Poyo is highly profitable. This situation will certainly accelerate the change to Poyo.

Annexure B-6

# BANANA INDUSTRY IN THE CANARY ISLANDS+

## Production

Production of bananas in the Canary Islands in recent years was as follows:

| Year | Production (Thousand Tonnes) |
|---|---|
| 1960 | 288 |
| 1961 | 332 |
| 1962 | 326 |
| 1963 | 325 |
| 1964 | 383 |
| 1965 | 373 |
| 1966 | 435 |

Varieties. The Canary Islands are located between latitudes 27 and 28°N, and night temperatures fall to 8°C during the winter on the coastal strips where the banana plantations are sited, which places the Archipelago in the marginal zone for banana cultivation.

The relatively strong winds periodically sweep the Islands and the presence there of Fusarium oxisporum have forced growers to adopt the dwarf variety "Cavendish", which is found in the great majority of plantations. This variety combines the advantages of good wind resistance thanks to its dwarf habit of growth, a virtual immunity to Fusarium diseases, good adaptability to the temperate climate

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+ Extracts from the 'Report on Banana Production and Marketing in the Canary Islands (Spain)' prepared by the Government of Spain for the Second Session of the FAO Study Group on Bananas held in Canary Islands during October 9-17, 1967

and low rainfall of the Islands, high yield per unit of production, a pleasing taste and smell and a high nutritional value when the fruit is at the optimum stage of growth and ripeness. The disadvantages of this variety are its susceptibility to attack by nematodes, irregular-shaped bunches and a liability to damage during handling and transport, although this last disadvantage is becoming less important with the advent of a new form of packaging: "dehanded" bananas in cardboard containers.

Up to the present time there have been some sporadic trials, not controlled, of other types of bananas of the same variety, "Cavendish", but the results obtained were not particularly satisfactory, and it is only now that there is a likelihood that a wider range of research and experiments will be undertaken by the National Institute of Agronomic Research (Instituto Nacional de Investigaciones Agronomicas).

Distribution of the growing areas. The choice of sites for growing bananas in the Islands is mainly governed by the availability of irrigation water and exposure to the prevailing winds.

At the present time bananas are grown in Tenerife, Grand Canary, La Palma and Comera but not in Lanzarote, Fuerteventura and Hierro, no doubt because of the shortage of water on these islands. In Tenerife and Grand Canary bananas are grown mainly in the northern regions where water is plentiful, the largest concentration being in La Orotava valley in Tenerife where some 1,500 hectares are grown; there are also large plantations in Arucas, Galdar and Gula on Grand Canary.

On La Palma, bananas are grown in the wetter areas between Tazacorte and Los Llanos and in the north between San Andres y Sauces and Barlovento.

The plantations on Gomera are in the north between Hermigua, Agulo and Vallehermoso, though there are also a few in the south at San Sebastian, Alajero and Valle Gran Rey.

Generally speaking, land with a south-westerly aspect is best suited to bananas, both because the climate is milder and because it is sheltered from the prevailing winds, although it is usually less well watered.

Distribution of the banana-growing areas, by islands

| | ( Hectares ) |
|---|---|
| Tenerife | 4,530 |
| La Palma | 1,570 |
| Comera | 500 |
| Grand Canary | 4,000 |
| Province of Santa Cruz de Tenerife | 6,600 |
| Province of Las Palmas | 4,000 |
| Total for the Archipelago | 10,600 |

Size of farm units. Banana growing in the Canaries is extremely fragmented, the average area per producer being slightly over half a hectare. There are over 12,000 producers in the Archipelago and of these 9,000 own less than the average half-hectare.

Table below shows the distribution of producers according to the size of the area they cultivate. The number cultivating an area in excess of 3 hectares is less than 3%. These figures give a very clear picture of the social structure of banana growing in the Canaries and the wide distribution of wealth, although such widespread small ownership has certain structural disadvantages which become obvious when the respective levels of costs and prices move too close to each other.

Number of producers according to size of area cultivated

| Size of Area (Hectares) | No. of producers | % |
|---|---|---|
| Under 0.5 | 9,151 | 73.9 |
| 0.5 to 1 | 1,586 | 12.8 |
| 1 to 2 | 983 | 7.9 |
| 2 to 3 | 293 | 2.4 |
| 3 to 4 | 133 | 1.1 |
| 4 to 6 | 119 | 1.0 |
| 6 to 8 | 58 | 0.4 |
| 8 to 10 | 13 | 0.1 |
| 10 to 15 | 21 | 0.2 |
| Over 15 | 21 | 0.2 |
| | 12,378 | |

Method of cultivation

Preparation of the land. The uneven topography of the islands and the sparse covering of topsoil make it necessary in the majority of cases to undertake expensive preparation

work before the land is ready to plant. The work consists of levelling the plots, leaving just the correct fall for the irrigation water and an adequate depth of good soil in which the roots can develop, together with the necessary drainage to avoid the possibility of water standing below the surface.

The work of breaking new ground requires that the ground be levelled to a considerable depth and explosives may have to be used becuase there is a great deal of rock in the sub-soil. It is then necessary to cover it to a depth of about 20 cm of crushed stone, followed by a 10 cm layer of gravel, both of these to assist drainage. On top of this goes a 70 cm deep layer of top-soil which in many cases has to be brought from a distance of over 20 km. This artificially-created soil has to be held in place by dry-stone walls on top of which windbreak barriers are erected. Finally, it is also necessary to construct the network of internal irrigation channels.

The spacing of the trees varies according to the orientation of the land, its altitude and its fertility, but usually falls somewhere between 2 x 2.50 m (equal to 2,000 plants per hectare), suitable for a southerly aspect and a height little above sea level, and 2.50 x 3.00 m (equal to 1,333 plants per hactare.) for higher land with a northerly aspect.

This work of preparing the land is extremely expensive and at the present time represents an outlay of 700,000 to 1,000,000 pesetas per ha.

Irrigation. The annual rainfall in the Canaries is usually very low, and all crops require frequent irrigation, the banana more than most. The north-facing land has a rainfall of about 300 mm per year, that in the south only about 100 mm, but there are years when there is practically no rain. Moreover, the rainy season lasts only four months, from November to February.

The annual water requirement of a banana plantation is estimated at some 1,800 mm, but 1,500 to 1,700 mm is essential. Generally speaking, a fixed flow of 0.60 litres/s is required for the irrigation of one ha.

As there are no surface streams in the islands and natural springs are rare and have a small flow, it is necessary to build collection channels for the rainy season and to make use of underground waters for irrigation purposes.

The work of locating underground water supplies is very much of a gamble, although less so with modern techniques. It has been necessary to bore a large number of wells, particularly on Grand Canary, some up to 300 m deep, with powerful pumping equipment. A number of tunnels have also been cut through the mountain, especially on Tenerife and La Palma, often up to 3,000 to 4,000 m in length, to reach underground rivers or tap the water held in natural basalt basins.

The total flow of water obtained from bores in tunnels and from natural springs is estimated at approximately 12,000 litres/s for the whole of the Archipelago.

There is another estimated 60,000,000 $m^3$ from channels and reservoires built to conserve as much of the scanty rainfall as possible.

The total supply of water from all these sources has to satisfy not only agricultural needs but the requirements of industry, domestic consumers and ships putting into ports as well.

The cost factors involved in exploration and exploitation, and the pressure of demand upon supply, cause the price per $m^3$ of irrigation water to fluctuate between 3 and 10 pesetas, according to area and season, and it will cost half to one million pesetas, more in some cases, to purchase a flow of one litre/s.

Irrigation water, however, is a very important factor and it presses hard upon agricultural production costs, particularly in relation to bananas.

The water supply problem has an appreciable effect on the economy of the islands, and the installation of sea-water desalination plants using electric power is under consideration,as well as plants for the purification of effluent.

Another approach which has been experimented with for a number of years is sprinkler-irrigation- the latest being low-level sprinkling to prevent dispersion and irregular distribution due to wind - with the aim of economising in water, since it is estimated that this would save some two-thirds of the water currently used. There have also been trials of the water saving potential of protective mulches on sloping and sandy areas.

Cultivation. Heavy soils and those with a low organic content are usually dug to a depth of 30 cm each year to assist root development, and the surface is raked twice after irrigation to break the crust which forms and destroys weeds, although selective herbicides are being used increasingly.

Manure is applied annually, or at least every two years, according to the organic content of the soil, at a rate of forty tons/ha. Chemical fertilizers and also widely used at the rate of 400 kg N, 350 kg. $P_2O_5$ and 500 kg $K_2O$ per hectare.

As explained above, it is also necessary to apply 700-800 $m^3$/ha. of irrigation water at intervals of 20-25 days during the cooler months and 12-15 days during the warmer months at a rate of flow of 12-25 1/s.

Pest control. Bananas in the Canaries are subject to attack by the downy beetle (Dysmicoccus alazon) the expansion of which is facilitated by the Argentine ant (Ridomirex humilis) and nematodes of the species Meloidogynes, Practilenchus, Helicotilenchus, etc.

The Cavendish varieties are generally resistant to Fusarium diseases although sporadic attacks occur when the plants are in poor health due to high soil pH, inadequate drainage or following heavy attacks of nematodes.

Various insecticides have been used with great success against the beetle and the Argentine ant, mainly organo-phosphorus and chlorinated compounds. Dibromochloropropane has proved successful against nematodes. The

sporadic outbreaks of Fusarium disease are corrected by improving conditions of growth - liming the soil improving drainage, using nematocides, etc.

Fortunately, sigatoka disease is unknown in Canaries bananas.

To prevent the growth of various types of fungus on the ends of the fruits, due to the moisture content of the "flowers", these have to be removed at the appropriate time.

Labour. The effective labour requirement for banana cultivation is two full-time workers per hectare, but now that some of the work has been mechanized, this minimum standard no longer applies. However, the labour force actually employed is still very large compared with that in other banana-producing areas, as a result of the many jobs which need doing through out the year.

The wages of the workers employed in banana growing are governed by the official minima in force throughout Spain, unless improved rates have been agreed through collective agreements freely negotiated between the parties.

Cost of cultigation. The intensive use of labour, manure and chemical fertilizers, and irrigation water results in a very high level of production costs in banana growing in the Canaries, which makes it very difficult to compete with producers in other parts of the world.

The cost per hectare varies according to areas and circumstances, but recent completed studies estimate that it will be between 200,000 and 250,000 pesetas.

Methods of handling

Farm to packing shed. Every bunch, picked at the proper time and degree of ripeness, is immediately wrapped in cloths to prevent chafing and bruising and placed in the shade in the farm loading bay.

Transport from the farm to the packing shed is by lorries with padded floor and sides and, unless the lorry has a false floor, not more than five layers should be placed in it.

In the packing shed. The bunches are individually washed and packed when clean and dry. They are supported on wads to protect them and prevent breakage of the "hands". The bunch is then wrapped in a sort of quilt of Kraft paper stuffed with raw rice, dried pine needless or banana leaves, and tied up with string. A string loop is tied under the second "hand" of the bunch and must be strong enough to support its weight as it is used to hang it in the ripening rooms on reaching its destination. A gummed label showing quality, name of exporter and weight is attached to the outside of the package and serves a seal. Another label showing the exporter's name and the packing shed number is attached to the string loop for identification on arrival at the destination.

For some years the bananas have also been packed in cartons containing 12 kg net, but this requires properly prepared "dehanded" fruit. This type of packaging is used for those types of foreign market that require it, such as France, Italy, Czechoslovakia, Poland, etc. and for some shipments to the Spanish mainland.

The changes needed for the switch to "dehanded" fruit in cartons are currently proceeding, and there are laready three carton-making factories in operation and several modern "dehanding" stations under constrution.

Before packaging by either method the fruit is graded, standards being much higher for foreign markets.

Packing shed to docks. When the bunches are packed they are taken from the packing shed tc the docks in lorries, also padded on floor and sides, and not to be loaded with more than six layers. The lorries have canvas ownings which are put up on wet days to prevent the bananas from getting wet. They are carefully unloaded into warehouses on the docks. At an early date fruit stations are to be constructed at the ports of Las Palmas and Santa Cruz de Tenerife, and these will have provision for moderate pre-cooling of the fruit.

The fruit is carefully inspected by officers of the official organization SOIVRE in the actual warehouses immediately before loading.

Docks to ships. Loading is carried out by means of hooks, platforms, hoists and straps, or by hand, care being taken not to damage the fruit. The ship's holds must have been cleaned and ventilated and should have boards to raise the fruit off the floor, leaving a pocket of air underneath, a similar arrangement being used around the side walls. The bunches are stowed in rows across the axis of the ship, a sufficient number of ventilation tunnels being left according to the size of the hold. Seven layers are

permitted with bunches and nime with cartons. Nothing is allowed to be loaded on top, except in exceptional circumstances, and the banana holds may not be used for tomatoes or other produce which might spoil them.

Quality Control

In 1961 CREP laid down standards which specify in detail each and every one of the operations of handling, packing and transporting the fruit, from the cutting of the bunches on the farm to the loading of the cargo boat, and some slight modifications have been introduced since then in the light of experience.

There is also an Order promulgated by the Ministry of Commerce, dated 23rd July 1966, which contains the official standards regulating in detail the export of Canary bananas.

Transport

To Mainland Spain. The se transport of bananas from the Canary Islands to mainland Spain is effected in ships owned or leased by CREP and flying the Spanish flag. The regular runs with weekly sailings at present established are as follows: three to the north (ports of Vigo, Coruna, Gijon, Santander and Bilbao); four to the south (ports of Cadiz, Seville and Malaga); four to the east (ports of Alicante, Valencia); and three to the north-east (port of Barcelona and Palma de Mallorca). The weekly capacity of these 14 regular runs amounted to 7650 metric tons of bananas (net). The ships at present in use have speeds of 12 to 17 knots and all have simple electrical fan systems of ventilation as they have only a short distance to travel, although there is a possibility that refrigerated ships may be used some time in the future.

Freight charges vary according to distance and the quality and speed of the ships, the present average being 1,000 pesetas per metric ton of bananas (net).

To foreign markets. As the bananas are sold FOB Canaries ports, the foreign buyer has only to arrange the means of transport by sea, using ventialated ships as a rule, although some refrigerated ships are used for Mediterranean countries during the summer months.

Exports

Exporting companies. There were fifty-four exporting companies operating in the Archipelago during 1966, handling an average of 8059 tons each. Of these, 34 were in the province of Santa Cruz de Tenerife and averaged 7849 tons, and 20 in Las Palmas, averaging 8414 tons.

Table below gives details of exporters arranged under the tonnage of bananas handled by them during 1966. This clearly shows that most of them are very small, although this does not in any way affect foreign trade, as all sales of bananas abroad are coordinated by CREP.

Export companies classified by tonnage of bananas handled in 1966

| Tonnage | No. of exporters |
|---|---|
| Under 1,000 | 5 |
| 1,001 to 2,000 | 10 |
| 2,000 to 3,000 | 5 |
| 3,000 to 5,000 | 7 |
| 5,001 to 10,000 | 14 |
| 10,001 to 15,000 | 7 |
| 15,001 to 20,000 | 2 |
| 20,001 to 40,000 | 3 |
| Over 40,000 | 1 |

Co-operative movement. The co-operative movement in the banana sector of the Canaries is exceptionally vigorous and has a tradition going back more than 50 years.

They are producers' co-operatives which receive the fruit from their members, grade it, pack it and sell it for them, paying them their share of the cash receipts at agreed intervals (weekly on Tenerife, monthly on Las Palmas) obtained from foreing exports, sales to mainland Spain and in the home market.

The co-operative movement is so strong that the exporters usually guarantee the producers who deliver the fruit to them under equivalent conditions a minimum price which is the same as that fixed by the largest co-operatives on the island in question.

There were 14 co-operatives operating in the Archipelago during 1966, handling a combined tonnage of 168,027 metric tons (average 12,002 tons), or 38.6% of the total. Ten of these were in the province of Santa Cruz de Tenerife (average 12,027 tons) and four in Las Palmas (average 11, 937 tons).

Table below shows the co-operatives under the tonnage of bananas handled by them during 1966.

Co-operatives classified by tonnage of bananas handled in 1966

| Tonnage | No. of co-operatives |
|---|---|
| Under 1,000 | 0 |
| 1,001 to 2,000 | 3 |
| 2,001 to 5,000 | 2 |
| 5,001 to 10,000 | 4 |
| 10,001 to 20,000 | 3 |
| 20,001 to 40,000 | 1 |
| Over 40,000 | 1 |

Exports. Table below gives the export figures, i.e. foreign sales shipments to mainland Spain (although these are not exports in the strict legal sense but are regarded as home trade) and consumption in Canary Islands.

Exports of Canary Bananas

| | |
|---|---|
| 1960 | 96,000 |
| 1961 | 86,000 |
| 1962 | 104,000 |
| 1963 | 123,000 |
| 1964 | 105,000 |
| 1965 | 121,000 |
| 1966 | 91,000 |

Shipments to Mainland Spain

| | |
|---|---|
| 1960 | 181,000 |
| 1961 | 196,000 |
| 1962 | 181,000 |
| 1963 | 196,000 |
| 1964 | 226,000 |
| 1965 | 244,000 |
| 1966 | 302,000 |

Banana consumption in the Canary Islands

| | |
|---|---|
| 1960 | 20,000 |
| 1961 | 31,000 |
| 1962 | 21,000 |
| 1963 | 23,000 |
| 1964 | 35,000 |
| 1965 | 24,000 |
| 1966 | 40,000 |

Research and experiments

The National Institute of Agronomic Research is currently setting up two research centres in the Canaries with the basic aim of improving quality and lowering the excessively high production costs. There is also a farm school in las Palmas maintained by the local authority for Grand Canary and another in Tenerife run by the Ministry of Agriculture, Agricultural Training Department.

Studies are carried out on "types" of plantation representative of each area and include regulating the harvest so that it comes at the most convenient time, applying herbicides and pesticides, new methods of irrigating, etc.

At the Malaga Experimental Station on the mainland the National Institute of Agronomic Research is trying out new varieties of banana for subsequent transfer to the Islands and, when convinced of their adaptability, decides whether to introduce them there.

Experiments are also going on with the variety in current use to improve the conformation of the bunches and obtain fruit which stands up better to handling and transport. The Institute also intends to set up studies in the best use of modern "dehandling" techniques and packaging in cardboard containers.

Organisational set-up

CREP+ was originally an official body advised by the private sector, but in 1954 it was converted into an

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+ Regional Organisation of the National Syndicate of Fruits and Vegetables of Spain

organization run by the representative of the co-operatives and the exporters, freely elected through their syndicates, although there was some official intervention. It seems likely that this tendency to transfer responsibility for the control of the Canaries banana trade to those who have a stake in it will go still further in future.

Government representation. CREP's present structure is that it has as its chief managing body a regional commission comprising 16 members representing co-operatives and exporters, 8 from each of the two Canaries provinces, Santa Cruz de Tenerife and Las Palmas, and 4 members representing the official organization SOIVRE, these being the Commercial Delegate and the Chief Engineer of each province. In addition, the Regional Commission includes the Chairman of the Provincial Syndicates for Fruit and Horticultural Produce, also elected, and the Chairman of CREP itself is the holder of this office in the National Syndicate for Fruit and Horticultural Produce.

The fact that the members of the Regional Commission are truly representative is evidenced by the tonnage of bananas handled by it elected members, co-operatives and exporters, amounting to 256,434 tons in 1966, or 58.9% of the total production of the Archipelago.

Operation of the organization. CREP controls the Canaries production through weekly "trademark" declarations compiled by the co-operatives and exporters and listing the available fruit, with a sufficient allowance for export.

Each week CREP reviews the orders from abroad and information on demand in the mainland market and distributes the available fruit between them, giving preference to the

Spanish market insofar as contracts with foreign buyers allow and consigning the surplus to the local market. Sometimes there is an excess of fruit which remains in reserve, while at other times advances are requested over the "trademark", both cases acting as indirect regulators.

CREP orders the amount of fruit to be prepared from the co-operatives and exporters in proportion to the "trademark" declaration for each of them and the previously agreed overall distribution, so that all have a fair share in foreign exports, shipments to the mainland and local supplies.

CREP in conformity with Standards in force since 1961 supervises all the operations of handling the fruit from bunch cutting to loading on the ships, applying the appropriate penalties when necessary. It also collaborates with SOIVRE in the official inspection of exports.

CREP looks after and makes good any damage sustained in transit, both to Spain and abroad, acting on behalf of the co-operatives and exporters and making the necessary adjustments to their weekly payments. It also takes care of freight charges for Spanish shipments, charging the co-operatives and exporters accordingly.

CREP, under the supervision of SOIVRE and the Ministry of Commerce, also sees to the packaging and undertake publicity when considered desirable.

CREP has administrative personnel, inspectors and supervisors in all four banana-producing islands.

To meet its operating expenses, CREP levies a charge of 0.05 pesetas per kilogram and pays back any surplus to the co-operatives and exporters at the end of the year.

Marketing. Sales of bananas to the mainland are negotiated directly by the co-operatives and exporters, usually via the port, and by agents and dealers, except in cases where they have their own ripening and distributing organization.

Sales in the Archipelago are also made directly by the co-operatives and exporters, usually to independent ripeners who then arrange their own distribution in the islands.

Foreign sales, on the other hand, are negotiated by CREP on behalf of the co-operatives and exporters, under the agreements made by the regional commission, although this procedure is not mandatory, as the co-operatives and exporters are free to make their own sales agreements. However, the situation in European markets has been so difficult that so far it has seemed expedient to let CREP handle all exports centrally, in the best interests of the Canaries banana.

CREP sells abroad FOB Canaries ports and normally annual contracts are agreed with the various buyers for regular or seasonal deliveries and paid for by open credit against bills of lading.

CREP makes weekly payments to the co-operatives and exporters out of the total cash proceeds it obtains acting as middleman in foreign sales.

In turn, the co-operatives and exporters pay the individual farmers for the fruit, weekly in Tenerife and monthly in Grand Canary, Palma and Gomera, averaging the price

obtained for foreign, Spanish and home sales, although in general the ruling prices are those fixed by the larger co-operatives of each island.

Future of production and Exports

The potential for banana production in the Canaries is limited, mainly by the availability of irrigation water, and there is no hope of a significant increase in this at short notice.

Therefore it seems likely, with some possible alternatives, that the present rising trend will continue to reach a level of about 500,000 metric tons in 1970.

Assuming a normal home consumption of 30,000 metric tons, this leaves some 120,000 tons a year available for foreign exports in the next few years, this forecast being subject to prospects of sale, offers from other source and price levels.

Annexure B-7

CONTRACT FOR PURCHASE/SALE OF BANANAS BETWEEN SOCIETY OF BANANA PRODUCERS LTD., - CONPROBA - OF GUAYAQUIL, ECUADOR AND LA COMPAGNIA GENERALE INTERSCAMBI, COGIS OF MILAN

At Milan, on October 20, 1966, on one side the Compagnia General Interscambi - COGIS S.r.l., Corso Venezia, 54 - Milan, Italy (legally represented by its General Manager, Mr. Leo Cittone) and which shall be referred to in this document as "The purchaser" and on the other side the Society of the Banana Producers Ltd., Conproba - October 9, 1966, 127 of 201 - Guayaquil, Ecuador (legally represented by Mr. Roberto Shu in this document) and who shall be referred to as "The seller" made the following Contract for the purchase/sale of Bananas.

Duration and Quality

a) From October 20, 1966 to December 31, 1966 the buyer agrees to place at the disposal of the seller either ships chartered by the former during this period.

| | | | |
|---|---|---|---|
| Matouba | ETA | Guayaquil | October 27, 1966 |
| Pentelikon | " | " | November 10, 1966 |
| Priamos u subst. | " | " | December 1, 1966 |

or those charted at an opportunate time by Bolivar whose names are as under:

| | | | |
|---|---|---|---|
| Arabian Reefer | ETA | Guayaquil | November 4, 1966 |
| Ecuadorian Reefer | " | " | November 21, 1966 |
| Arabian Reefer | " | " | December 11, 1966 |
| Ecuadorian Reefer | " | " | December 25, 1966 |

The availability of these ships is in any case subject to the approval of the ship owner.

b) From January 1, 1967 to December 31, 1967 the buyer shall have to place at the disposal of the seller a minimum number of 4 ships per month for a quantity which shall be between 100,000 cartons and 200,000 cartons for each ship. In case the buyer needs quantities more than 200,000 cartons the same can be requested, in each case, and will be subject to the approval of the seller.

In any case, this point is subject to the special clause of sub-para (a) above.

Packing and Weight

The packing will be done in small corrugated cartons (type 115RU) of white colour, printed according to the plates which the buyer will supply to the seller. The printing charges for these cartons will be borne by the seller. The seller is obliged to hand over to the buyer a list of the numbers and names of each producer and will number the cartons accordingly.

The seller will give a guarantee to the buyer for a weight of 26.75 pounds nett for each box at its arrival at the port of destination. It is agreed that any difference in weight as mentioned above shall be paid for by the buyer to the seller or by the seller to the buyer on the basis of the cost price established by this contract.

Quality

The goods which will be supplied by the seller to the buyer will be of the Gross Michel Variety, grade 40 to 41 (naturally the ones which the climatic conditions allow, but not of a grade less than 39 or more than 42). The banana bunches should have fruits of a minimum length of 7½ inches and should be uniform. The seller will have to take particular care of packing half big bunches

instead of small ones. The goods have to be green, healthy and free from any disease or attack of insects and fully commercial.

Prices

The price is agreed at ... US dollars FOB Guayaquil for each box of 26.75 pounds nett on arrival. It has been agreed that the payment of the "Freight Shipping Tax" in Ecuador shall be borne by the seller. It is also agreed that if the international price of the Gross Michel type, or of any equivalent variety, increases or decreases to one-third of the price of this contract, both the parties will agree for a revision of the price given in this contract.

Payment

The buyer will open an irrevocable credit in favour of the seller with a first class bank ( to be indicated later by the seller and accepted by the Italian Bank) negotiable against the following documents, within 10 days before the expected arrival of the ship at Guayaquil.

- Full set of clean on board Bills of lading, issued to order and blank endorsed, marked "freight prepaid" (plus 2 n/n copies).
- Statement (2/2) issued by Banco Central del Ecuador or by Direccion National del Banano of Guayaquil, showing that the price of goods is true and correct.
- Phytosanitary certificate, issued by Ministerio de Agricultura showing that the goods have been treated with "aceite mineral" (mineral oil) and showing also "LA FRUTA ES LIBRE DE CUALQUIERAS PARASITAS DE ORIGEN VECETAL O ANIMAL PELIGROSA E/O DIFUSIBLE" (The fruit is free from any parasites of vegetable or animal origin, dangerous or diffusible).

- Original commercial invoice and 3 copies, showing number of cartons, net and gross weight.
- Certificate of Ecuadorian origin (original and duplicate) issued by Ecuadorian Chamber of Commerce and visa given by Italian Consular Authorities.
- List of the shippers, with corresponding numbers, and quantity of loaded cartons.
- Copy of beneficiary's airmail letter addressed to COGIS, Corso Venezia, 54, Milan, by which it is declared that copy of all required documents, including the copy of stowage plan have been airmailed directly to COGIS after loading.

Any additional documents will have to be asked for from the seller at an appropriate moment before loading. The said opening of the credit will be intimated to the seller within 24 hours of the order given to the Italian Bank, by telegram which the Italian Bank will send to the accepted Ecuadorian Bank and by another telegram which the buyer will send directly to the seller, stating:

- Name of the ship and expected date of arrival at Guayaquil.
- No. of the credit.
- Value of the credit.
- Minimum number of cartons to be loaded, in thousands (for example 175,000 cartons will be telegraphed as 175).
- Freight value.

The credit will be opened by the buyer for 85% of the FOB value of each loading. The telegram for the payment of the difference will be sent, if possible, within 5 days after the unloading is done, on the basis of the final information of unloading and, if it is not possible, within 24 hours after the said information by the buyer and on the basis of the final information of unloading the difference will be settled in favour of the

seller or the buyer.

Final Settlement at the Time of Unloading

a) Weight: The weight will be nett as determined at the port of arrival, and verified by custom certificates.

b) Quality: The quality of the fruit has to be, at the port of unloading, green, healthy, pure, and free from any disease or attack of insects and fully commercial. The proportionate CIF value of all the ripe fruit which might be necessary to destroy will totally be borne by the seller, including the cost of destruction.

For the ripe fruit to be sold with depreciation (turners) in accordance with the rules in force in the Italian market, the depreciation will be borne by the seller when it exceeds 4% of the loaded quantity.

Conditions of Loading

The seller shall have at his disposal for loading of each ship a maximum period of 36 hours counted without break (with the exception of interruptions caused by rain) from the time of arrival of the ship at Guayaquil according to the Charter Party, and, in anycase if the ship arrives in the morning, the time will be counted from 2 P.M. onward.

If the ship arrives in the afternoon, the time will be counted from 9 A.M. of the following day.

If the time actually used is more than 36 hours, the seller will pay to the buyer the 'demurrage' according to the Charter Party.

Together with the documents mentioned under clause "MANNER OF PAYMENT" the following documents will have to be sent to the buyer.

a) Copy, duly endorsed by the captain, of the written instructions which the sender will give to the captain of each ship regarding the temperature which the ship has to maintain during the voyage.

b) Copy of the "statement of facts" signed by the captain, the ship agent and the seller.

Further, the seller will hand over to the captain (if possible), a copy duly signed, of the phito-sanitary certificate.

The (captain of the) ship or the shipowners will give to the seller two prior informations by telegrams about 5-8 days before the arrival of the ship and also a final prior information 48 hours before the arrival of the ship.

At the departure of each ship the seller will send a telegram to the buyer giving the following details:

a) Time of departure of the ship.
b) ETA base, arrival in the west coast of Italy.
c) Number of the cartons loaded.

Conditions for Unloading

The unloading by the buyer should be completed in 72 hours at the maximum from the time when the unloading operations begin and in no case the time could be more than 96 hours from the time of arrival of the ship.

After the period, the seller will not be responsible for the quality of the fruit which has not been unloaded, except for the diseased fruit which has been verified.

Sole Rights

The seller agrees to grant to the buyer the sole rights for the sale in Italy of the fruit produced by him and, therefore, he is obliged not to sell to other Italian or foreign societies goods meant for the Italian market during the period of this contract. Further, the seller is obliged not to sell his bananas to any destination at a price lower than the one established in this contract. The buyer promises to do all that is possible to develop and popularise Ecuadorian bananas in European countries which are shown below:

France, Switzerland, Austria, Yugoslavia, Southern Germany and all East European countries and the seller is obliged for the period upto June 30, 1967 to inform the buyer of the requests which he may receive from the above mentioned markets and is obliged to deal all sales in the said market only through the buyer and reciprocally the buyer would do the same.

In exceptional cases, the buyer (when informed about it by the seller) would buy for sales in Italy additional quantities over and above the quanities provided in this contract from other Ecuadorian exporters.

Packing

The sender promises to pack the cartons in a horizontal position with the cover on the top side.

Bank Guarantee for a False Freight

The seller promises to send through a first class Bank of Ecuador (accepted by the Italian Bank) within 10 days from the date of the signing of this contract, a letter addressed to the Italian Bank by which the Ecuadorian Bank promises to guarantee a false freight for each boat.

Special Clause

a) This contract is subject to the availability of ships to be chartered by the buyer for a programme of 4 ships per month. The buyer agrees to inform the seller upto January 20, 1966 the freights negotiated and the corresponding programme for the arrival of ships, which should a speed of over 17 knots and the year of construction of the ship not prior to 1956.

In any case, the ship must be classified "highest class" Lloyd's Register or equivalent.

b) In so far as it concerns the ships which have to be loaded up to the end of 1966, the buyer will inform the seller, about the availability of ships and, in any case, with prior intimation of atleast 10 days for each ship.

c) The seller agrees to send to the buyer, within a period of 20 days from the date of signing of this contract, the legal powers both for the legal representative of Conproba as the mandataries for each one of his associates.

Penality

If the buyer or the seller does not fulfil in part or whole the execution of this contract he will be responsible for the losses and will have to compensate immediately to the affected party.

Additional Clause

The price determined in this contract is considered to be fixed on the basis of 9.80 sucres as official price for the producer and includes the consideration of fluctuation between 9 sucres and 10.60 sucres without changing the price established in this contract. When this fluctuation exceeds the limits already mentioned, the parties will fix the just price by mutual consent.

If the official price of the fruit during the year falls below 9 sucres, the Conproba agrees to guarantee a net weight of 27 pounds on arrival.

Arbitration

The parties agree to solve all disputes by friendly means before taking recourse to arbitration.

In case they cannot come to an agreement between them, the arbitration, will be subject to the rules of the Arbitration Department of the International Chamber of Commerce, Paris.

Signed at Milan on 20th October 1966.

Seller
Society of Banana Producers,
S.A. Canproba

Buyer
Compagnia Generale Interscambi COGIS S.r.l.

Annexure B-8

## DRAFT OF THE AGREEMENT IN RESPECT OF PRODUCTION OF BANANAS

### A. Between the Government of Mysore, Banana and Fruit Development Corporation Ltd, Madras and Syndicate Bank Ltd, Manipal

This agreement is entered into on this the ..... day of March 196 by and between 1) Governor of Mysore represented by Secretary to the Government of Mysore in the Ministry of ..... Bangalore hereinafter called the first party 2) Banana and Fruit Development Corporation Ltd., Madras represented by its Managing Director, 15 Pycrofts Garden Road, Madras-6 hereinafter called the second party and 3) Syndicate Bank Limited, Manipal represented by its Managing Director hereinafter called the Third party. The expressions First Party, second and Third Party, unless the context otherwise suggests and include their heirs, successors-in-interest and assignees.

Whereas the first party is desirous of promoting cultivation of Dwarf Cavendish variety and other varieties of banana suitable for export and whereas for promotion of this scheme, it is necessary that the intending growers should be financed and a ready market made available for the fruits and whereas the second party has agreed to buty all the fruits of the standard prescribed by them from time to time and whereas the third party has agreed to finance such growers on condition that growers are adequately instructed to grow fruits of the correct variety by the first party and on condition that the second party shall

buy such fruits if of the prescribed standard variety so that the third party may have sure source of repayment and whereas it is considered desirable that the terms and conditions upon which the parties to this agreement agree for the promotion of the scheme should be reduced to writing.

Now therefore this agreement is entered into and witnesseth as follows:-

That in consideration of the mutual agreement and mutual desire to promote the scheme of banana cultivation in the State of Mysore the parties to this agreement agree as follows:

1. That the first party shall be reponsible for the promotion of the scheme to grow Bananas, in the first instance in the District of South Kanara around the Mangalore port, under construction and thereafter in other Districts of the State.

2. The first party agrees to arrange publicity and propaganda of the scheme in the area to attract prospective growers.

The first party shall be responsible to impart technical knowho to the growers to grow the fruits on a scientific way and for this purpose agrees to post adequate staff in the area, readily available for imparting such knowledge to the growers. The first party fruther agrees that such specialised staff, shall at first party's cost and without any consideration from anybody, supervise the cultivation of the crop from beginning to end.

The third party, upon being satisfied that the scheme is properly implemented that the first party has made adequate arrangements for imparting technical know-how to the growers and has also arranged for proper supervision of the crop shall advance to growers in the manner agreed to here below:

a) The third party shall advance a sum not exceeding Rs 1,500/- per acre brought under banana cultivation to the growers who has agreed to cultivate in terms of the instructions given by the officers of the first party from time to time in this behalf and who has also agreed further to accept the supervision of the crop by such officers and to abide by their instructions.

b) The third party shall advance the aforesaid sum as follows:-

   i) The amount which is necessary for the supply of fertilizers and planting materials shall be paid directly to suppliers of such materials on behalf of the grower and ii) the rest shall be paid in cash in two equal instal-ments, the first being at the time of preparation of the land and digging of pits and the second at the time of planting and filling the pits.

c) The third party shall be entitled to demand and obtain from the grower such papers and security as are deemed necessary by it.

5. The second party agrees to buy all the fruits grown by growers with the advice of the first party and financed by the third party if the fruits are of a standard prescribed by the second party from time to time in this behalf, which standard shall be disclosed to the first party from time to time.

6. The grower shall be responsible for harvesting the fruits and transporting the same to the nearest motorable road which point shall however be not more than 5 miles from the farm and the second party shall be responsible to take delivery of the fruits at points as indicated above in this clause and the harvesting of the crop shall be decided by the second party as and when the produce gets ready for marketing as per the judgement of the second party.

7. The second party shall pay the price mutually agreed upon between itself and the grower and shall pay the same at the time of taking delivery of fruits or in any event not later than 7 days of taking delivery of the fruits. Under exceptional cases this payment may be deferred as agreed upon in writing between the second party, third party and the grower concerned.

8. The second party shall be responsible for post havest processing, packing and transportation of the fruits from the agreed place and this shall be at its cost only.

9. The second party shall pay to the third party so much of the sale proceeds as is required to wipe off the entire lability of the grower to the third party in the first instance or shall pay the entire sale proceeds to the third party if the total liability of the growers exceeds the sale proceeds, in which case the grower shall make up the difference by payment in cash forthwith to the third party. The second and third party hereby agree to enter into a tripartite agreement between themselves and the grower enumerating all the terms and conditions in this behalf.

10. The parties to this agreement shall endeavour to bring banana cultivation under this scheme atleast 5000 acres in South Kanara District within a period of five years.

11. It is mutually agreed between the parties that each one of them shall fulfil the terms hereby agreed to and any breach of any undertaking by any party shall free other or other parties from the obligations undertaken herein.

12. It is mutually agreed between the parties that this agreement shall prevail for a period of 5 years from this day and that no party shall be entitled to go out of this during such period and any dispute arising out of this agreement among the parties hereto shall be in the first instance referred to the arbitration of a retired Judge of any High Court in India as may be mutually agreed upon by the parties as the sole arbitrator. The provisions of the Indian Arbitration Act 1940 and the amendments thereto shall govern the arbitration proceedings and his Award shall be binding on the parties.

In witness whereof the parties have put their signatures on the day month and year first above written at .....

First Party
Second Party
Third Party

In the presence of 1.

2.

B. Between the Grower, Syndicate Bank Ltd, and Banana and Fruit Development Corporation Madras

This memorandum of agreement is made on this the ..... day of..... 196 between..... (full name and complete address of the borrower/s)..... hereinafter called the first party and the Syndicate Bank Limited, Manipal a public limited liability Banking Company registered under the Companies Act 1956 with its registered office situate at Manipal in South Kanara District of Mysore State represented by its duly constituted attorney and its Manager of..... Branch Sr.....son of..... (complete address)..... hereinafter called the Second party and the Nanana and Fruit Development Corporation Ltd., Madras represented by its Managing Director, 15 Pycrofts Garden Road, Madras-6 hereinafter called the third party.

Whereas the Government of Mysore has by a scheme encouraged the growing of bananas in South Kanara District with the offer of advice for and supervision of the cultivation of banana crop from competent officials of the State under a tripartite agreement dated..... entered into between Government of Mysore, Syndicate Bank Ltd., and Banana and Fruit Development Corporation Ltd., Madras and whereas the first party has under the said scheme accepted to cultivate an extent of ..... acres of land and whereas the first party has sought and obtained a loan of Rs ..... from the second party for the purpose of cultivation of Banana crop and whereas the second party has agreed to advance the said loan as the third

party has agreed to buy all the Banana fruits from the first party if of the prescribed standard variety and whereas it is necessary that the mutual terms and conditions agreed to between the parties should be reduced to writing.

Now therefore this agreement is entered into and witnesseth as follows:

1. That the first party shall bring under Banana cultivation and extent of ..... acres of land and the first party hereby agrees that he shall faithfully abide by the instructions given by the officials of the Mysore Government and for the cultivation of the crop and shall grow the crop under the strict supervision of the said officials whichservice is to be granted by the Government of Mysore under the aforesaid tripartite agreement date.....

2. The second party shall advance a sum of Rs..... to the first party as follows:- i) A sum of Rs ..... in kind by way of fertilizers and planting material by means of payment direct to the suppliers of such material at the instance of the first party as prescribed by the officials of the Government of Mysore ii) A sum of Rs.... in cash in two equal instalments, the 1st being at the time of preparation of the land with pits and the second at the time of planting and filling the pits etc.

3. The first party shall be bound to harvest and offer for sale the full crop to the third party only. The third party hereby agrees to purchase all the bananas

grown by the first party under the schme at a price mutually agreed upon between the parties from time to time if the bananas are of the standard variety prescribed by the third party and are free from blemishes and disease. The third party shall be entitled to reject the fruits that are not of the required quality and the decision of the third party as to quality shall be final. The third party also agrees to apply the sale proceeds towards the clearance of loans borrowed by the first party from the second party.

4. It is mutually agreed between the parties as follows:-

a) The first party shall always carry out the instructions given by the officials of the Government of Mysore for growing the banana crop in all respects particularly in (a) preparation of land (b) use of fertilizers (c) selection of propagation materials and (d) prophlactic measures to control pests and diseases.

b) The first party shall execute necessary loan papers prescribed by the second party with such security/surety as is stipulated by the second party and shall also be liable to pay interest at the rate of ....% per annum on such advance until the date of clearance.

c) The second party shall have a first charge on the crop for the recovery of the advances made by it to the first party.

d) The second party shall make advances to the party as contemplated under clause (2) above.

e) The first party shall be bound by the judgement of the third party as to the time of harvesting of the crop and the first party shall be bound to harvest and transport the fruits to the nearest motorable road which point shall however be not more than 5 miles from the farm and the third party shall be bound to take delivery of the fruits at the point as noted above.

f) If the bananas are of the prescribed standard quality and are free from blemishes and disease, the third party shall be bound to take possession of the bananas delivered to the third party by the first party as noted in sub-clause (e) above and shall be responsible for processing, packing, transport and marketing and the first party shall not be liable for any expenses in this behalf.

g) Union taking delivery of bananas ad detailed in sub-clauses (e) and (f) above, the third party shall pay the first party the price mutually agreed upon between the two parties or in any event not later than 7 days of taking delivery of the fruits. Under exceptional cases, this payment may be deferred as agreed upon in writing between the first party, second party, and the third party concerned. The third party shall also be bound to pay to the second party as disclosed by the second party if the total liability of the first party exceeds the sale proceeds, in which case, the first party shall make up the difference by payment in cash forthwith to the second party. The first party agrees to the mode of payment of the price due to him from the third party as detailed above.

h) Any portion of the fruits rejected by the third party shall be sold by the first party under the direction and supervision of the second party. In case the first party fails to clear the balance remaining after the application of sale proceeds as detailed in sub-clause (g) above, the second party is free to take such action as is deemed necessary for recovery of the sum and nothing in this agreement shall prevent the second party from doing so.

i) It is agreed that the first planting of the Dwarf Cavendish variety of the bananas will be done by the first party in..... and for the produce from this crop of prescribed standard and without blemishes and diseases, the third party shall pay to the first party Rs..... per metric tonne for bananas suitable for internal marketing and shall pay Rs ..... per metric tonne for bananas harvested for export in the shape of hands.

j) If the first party fails to follow the advice of the officials of the Government of Mysore cultivation of the crop given by them from time to time, the second party may with hold the instalments to be advanced thereafter and shall be entitled to recover the advances already made forthwith together with interest, cost and expenses.

k) Nothing in this agreement shall apply to aratoon banana crop unless specifically agreed to separately by the three parties.

5. The expressions first party, second party and third party shall mean and include heirs, legal representatives, successors-in-interest, executors administrators and assignees wherever the context so requires.

6. The original of this agreement shall be with the second party and a duplicate copy duly signed by the parties shall be with each of the other two parties.

In witness whereof the parties have signed this agreement on the day month and year 1st above written.

In the presence of 1.

2.

3.

1.

2.

Annexure B-9

# MEMORANDUM OF ASSOCIATION OF ALL ISLAND BANANA GROWERS ASSOCIATION LTD, JAMAICA

1. The name of the Company is ALL ISLAND BANA GROWERS ASSOCIATION LIMITED, which is hereinafter referred to as "the Association".

2. The registered office of the Association will be situate in Kingston.

3. The objects for which the Association is established are:

(a) To promote foster encourage and institute measures for the well being of the banana growers of Jamaica and to protect their interests and to obtain any law for enabling the Association to carry any of its objects into effect or any other purpose which may seem expedient and to oppose any proceedings or applications which may seem calculated directly or indirectly to prejudice the Association's interests or the interests of any banana growers of Jamaica and to exercise all the the rights, powers and duties which may be conferred or imposed on the Association under any law including any law to provide for the development purchase processing manufacture transportation and/or marketing of bananas and its by-products.

(b) To take steps to improve the cultivation production species grade and yield of bananas grown in Jamaica and to investingate and treat the diseases of bananas.

(c) To promote-foster encourage and undertake research work in connection with the cultivation production treatment marketing and shipping of bananas and its by-products.

(d) To act as agents for banana growers or any of them in connection with the growth purchase collection treatment marketing and shipping of bananas and its by-products generally or on a co-operative basis.

(e) To grow collect treat market manufacture or deal in any way in bananas and/or its by-products and to carry on business as dealers in produce commission agents fruit merchants lightermen and ice merchants and refrigerating storekeepers and to erect built and operate packing houses and processing plants and any other buildings plant and equipment that may be necessary or convenient for the operation of Association's business.

(f) To enter into partnership or into any arrangement for sharing profits union of interests cooperation joint-adventure reciprocal concession amalgamation or to make any contracts with any person corporation or company engated or interested or about to become engaged or into ested in the carrying on or conduct of any business or enterprise which this Association is authorised to carry on or conduct from which this asscciation would or might derive any benefit whether direct or indirect or with any company formed by this Association.

(g) To purchase charter hire build otherwise acquire aircraft ships and vessels of all kinds with all equip-ments and furniture and to form any company or companies for the purpose of holding and operating such aircraft ships or vessels and to employ the same for the conveyance of bananas and other produce from and to Jamaica and other banana producing countries and to and from such ports in the world as may seem expedient and to acquire any postal subsidies provided that the Association shall not at any time exercise any of the powers conferred by this sub-paragraph or acquire or hold any aircraft ships or vessels of any kind or any shares in any company holding any such property without the prior sanction of a special resolution of the Association.

(h) To buy sell and deal in merchandise of every description including fertilisers and agricultural implements.

(i) To invest and deal with the moneys of the Association not immediately required and money retained by the Association on behalf of banana growers in such manner as may from time to time be determined.

(j) To lend money with or without security on any terms that may be determined.

(k) To borrow or raise money with or without mortgage and to secure or charge the repayment of same with interest by debentures mortagage or charge of or on all or any of the Association's property or assets present or future and to redeem and pay off any such loan or security.

(l) To draw maks endorse accept discount execute and issue promissory notes bills of exchange bills of lading warrants debentures and other negotiable or transferable instruments.

(m) To acquire purchase take and hold shares debentures and other interests in any other companies or societies carrying on business capable of being conducted so as directly or indirectly to benefit the Association and in particular to hold shares and debentures and other interest in any company or society organised for the marketing of bananas or for the carriage of bananas by land or by sea or by air or organised for the purpose of establishing printing and publishing magazines or newspapers.

(n) To lend money and to guarantee the contracts of and in any way to assist any person or company whether formed by the Association or not and to take subscribe for or otherwise acquire shares and securities ofany such company and to sell hold re-issue with or without guarantee or otherwise deal with the same.

(o) To promote any company or companies for the purpose of acquiring all or any of the property and liabilities of the Association and for any other purpose which may seem directly or indirectly calculated to benefit the Association.

(p) To take hold and use and dispose of any gift of money or property for any of the objects of the Association.

(q) To purchase take on lease or in exchange or otherwise acquire for the purpose of the Association any estates land buildings easements or any other interest in Real Estate and any personal property and to sell let or lease or otherwise dispose of or grant rifhts over any real or personal property belonging to the Association and to conduct maintain and alter any buildings or works necessary or convenient for the purposes of the Association and in particular to crect acquire lease and dispose of wharves packing houses or other buildings plant and machinery for use in connection with bananas or any by-products thereof.

(r) To sell or dispose of lease or let the undertaking of the Association or any part thereof in such manner and for such consideration as the Association may think fit and in particular for shares (fully or partly paid) debentures, debenture stock or securities of any other company whether promoted by the Association for the purpose or not and to sell improve manage develop exchange lease dispose of mortgage turn to account or otherwise deal with all or any part of the property and rights of the Association.

(s) To adopt such means of making known the business of the Association and the products in which it deals as may seem expedient and in particular by advertising in the press or by circulars and by publication of books and periodicals and by granting rewards and donations.

(t) To grant pensions allowances gratuities and bonuses to employees or ex-employees of the Association or the dependents of such persons and to support establish or subscribe to any charitable or other institutions clubs societies or funds or to any national or partiotic fund.

(u) To enter into any arrangements with any authorities municipal local or otherwise that may seem conducive to the Association's objects or any of them and to obtain from any such authority any rights privileges or concessions which the Association may think it desirable

to obtain and carry out exercise and comply with any such arrangements rights privileges and concessions.

(v) To pay all preliminary expenses that may be incurred incident to the formation of the Association and to the doing of any act or acts that may be adopted by the Association.

(w) To do all other matters hereby authorised in any part of the world either alone or in conjection with or as factors or by or through any factors trustees or agents.

(x) Generally to do all such things as may appear to this Association to be incidental or conducive to the attainement of the above objects or any of them.

4. The liability of the members is limited.

5. Every member of the Association undertakes to contribute to the assets of the Association in the event of its being wound up while he is a member or within one year afterwards, for payment of the debts and liabilities of the Association contracted before he ceases to be a member, and the costs, charges, and expenses of winding up the same and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required not exceeding one shilling each.

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company, in pursuance of this memorandum of association.

Names, addresses and description of subscribers.

1. R.F. Williams, Green Farm, Half Way Tree, Farmer.
2. Rudolph Burke, Llandewey, Famer
3. Chas, H. Shilletto, Christiana, Farmer.
4. C.D. DeLisser, Montego Bay, Farmer
5. A.B. Lowe, Adelphi, Farmer
6. C.L. Clemetson, Frontier, Port Maria, Farmer.
7. H. Ward, Islington, Farmer.

Dated the 16th day of August One thousand nine hundred and fiftysix. Witness to the above signatures:
D.L. WHITTLE.

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ARTICLES OF ASSOCIATION OF ALL ISLAND BANANA GROWERS ASSOCIATION LIMITED.

Preliminary.

Definitions:

1. In these articles unless there is anything in the subject or context inconsistent therewith:

"Association" means the All Island Banana Growers ASSOCIATION Limited.

"Area Council Director" means a director elected by an Area Council pursuant to the provisions of article 26 (2) (v).

"Board" means the Board of Directors of the Association.

"Delegate" means an Area Council delegate elected pursuant to the provisions of article 21.

"General Director" means a director elected at an annual general meeting pursuant to the provisions of article 28 (2) (b).

"Honorarium" means any gift or fee given or paid in respect of services rendered, but does not include salary or wages.

"Member" means a member of the Association.

"Paid Officer" means any officer or employee in receipt of any form of remuneration or salary (other than an honorarium) for services rendered to any Board, District Branch or Area Council.

"Register" means the register of members of the Association.

"Representative" means a District Branch representative elected pursuant to the provisions of article 10.

"Special Resolution" means a special resolution as defined by the Companies Law.

Words importing persons include Corporations, Companies, Societies, Co-operatives, Associations and partnerships.

## MEMBERSHIP

Qualifications.

2. Every person being a grower of bananas in Jamaica who is the owner or occupier of land on which there is cultivated not less than 50 roots, mats or stools of banana trees or who shall have produced and sold for export during the previous calendar year not less than 25 stems of bananas shall, on application to the Association, be entitled to become a member of the Association; the Board on being satisfied that such person is qualified as aforesaid shall cause him to be registered as a member.

Registration of Membership.

3. (1) Membership in the Association shall be divided among District Branches established under article 5 and the register of members shall be sub-divided accordingly and shall be conclusive evidence of branch membership.

(2) Upon application for membership, the applicant shall select the District Branch to which he wishes to belong and the Board shall give effect thereto unless satisfied that there is no justifiable reason for the applicant's.

4. The Board shall remove from the register the name of any member who resigns, dies or ceases to hold the necessary qualification and otherwise rectify the same when necessary in order to maintain an accurate record of membership.

## DISTRICT BRANCHES

**Organisation**

5. (1) The Board shall organise and establisb groups of members which shall be known as District Branches each of which shall consist of not less than 16 members and in so doingthe Board shall recognise organisations of banana growers which satisfy the qualifications prescribed by these articles.

(2) The rules and regulations of District Branches shall be formulated by the Board and the Board shall have power to add to, amend or revoke the qualifications prescribed by these articles.

**Transfers of Members**

6. The Board may in its discretion transfer a member from one District Branch to another either at the request of the member or because the Board is satisfied that circumstances justify such a transfer. In either case the register shall be appropriately amended and notice thereof given to the District Branches affected.

**Managing Committees**

7. Every District Branch shall have a managing committe consisting of not less than 3 nor more than 12 members all of whom shall retire annually but be eligible for re-election.

**Chairman**

8. (1) Every District Branch shall elect two of its number to be chairman and vice-chairman respectively of the District Branch and of the Managing Committee.

(2) The Chairman, when present, shall preside at all meetings of the managing committee and meetings of his District Branch and he (or the person performing the duties of chairman) shall have an original as well as a casting vote. It shall be his duty to forward or cause to be forwarded to the Area Council to which the District Branch is attached a full report of the proceedings of each meeting and the voting threat.

(3) In the absence of the chairman the vice-chairman shall when present, perform the duties of chairman.

In the absence of both chairman and vice-chairman the members present shall elect one of their number to perform the duties of chairman.

9. The Secretary of the District Branch shall be elected at the Annual General Meeting of the District Branch and shall be a member of the District Branch. If the appointment is not honorary the terms of employment shall be subject to the approval of the Board.

10. (1) Until otherwise determined by the Association in general meeting, each District Branch shall be entitled to elect one representative from among its members (other than a paid officer of the District Branch or Association) to the Area Council to which it is attached and also one additional such representative for each 50 members above the first 50 whose names, at the date of such election, are registered as members of such District Branch: Provided that if the number of such members, shall consist of a multiple of 50 and an additional 26 or more members, an additional such representative may also be elected in respect of those additional 26 or more members.

(2) Representatives elected pursuant to the preceding paragraph of this article shall be elected annually but shall be eligibel for re-election.

noval of
resen-
tives.

11. A District Branch may at any time by resolution of not less than two-thirds of the members present and voting at any meeting remove any representative and may by ordinary resolution elect another member in his place and may by ordinary resolution elect a representative to fill any vacancy among its representatives, however caused.

12. If at any annual meeting of a District Branch no election of chairman and/or vice-chairman or of representatives to the Area Council or of its managing committee shall take place or if for any reason the annual meeting is not held such persons elected on the previous occasion shall continue to retain their respective positions, until re-elected or replaced at the next annual meeting.

## MEETINGS OF DISTRICT BRANCHES

Annual meeting.

13. (1) Each District Branch shall hold an annual meeting in each year not less than 28 days before the date fixed by the Board for the holding of the annual general meeting of the Association.

(2) The annual meeting of each District Branch shall deal with the following business:

(i) Consideration of the annual report and accounts of the association that there are to be submitted by the Board to the next annual general meeting of the Association and the consideration of the District Branch Annual Report and Financial Statement.

(ii) The election of its chairman, vice-chairman, secretary and managing committee for the ensuing year.

(iii) The election of representatives for the ensuing year.

(iv) Any other business of which notice shall have been given.

14. A special meeting of a District Branch may be called by its managing committee whenever it deems fit and shall be called upon a requisition made in writing any seven members of the District Branch. Such requisition shall be addressed to the chairman or secretary of the District Branch and shall state the nature of the business to be dealt with at the meeting and each special meeting shall transact only the business for which it is called. If the managing committee shall fail to call a meeting to be held within 14 days of the receipt of the requisition the requisitionists may themselves call the meeting.

15. Any member being a corporation, company, society cooperative, association or partnership shall be entitled to attend and vote at any meeting of a District Branch to which it belongs by a person duly authorised in writing in that behalf by such corporation, company

society, cooperative, asscciation or partnership and such duly authorised person shall be eligible for election as a representative, a delegate or a director of the Association.

AREA COUNCILS

16. (1) The Board shall organise District Branches into groups of not less than 10 nor more than 18 Area Councils the meetings of which shall be attended by representatives elected thereto pursuant to the provisions of article 10.

(2) The Board shall, in its discretion, allocate the District Branches to be attached to each Area Council and may vary the same from time to time.

(3) A District Branch may apply to the Board to be transferred from one Area Council to another and the Board may in its discretion give effect to such application.

(4) The Board shall keep each Area Council informed as to the District Branches allocated to it and as to the number and names of members attached to such District Branches.

(5) The rules and regulations of Area Councils shall be formulated by the Board and the Board shall have power to add to amend or revoke the same from time ti time.

17. Each area council have a managing committee consisting of not less than 5 nor more than 9 members including chairman and vice-chairman elected from among the representatives to the Area Council all of whom shall retire annually but be eligible for re-election. In addition thereto, directors of the Association shall be ex officio members of the managing committee of the Area Council in whose territory such directors reside. The Board shall, where necessary, define the territorial limits of an Area Council.

18. (1) Each Area Council shall elect two of their number to be chairman and vice-chairman respectively from among the representatives of the District Branches that are attached to the particular Area Council. The chairman

and vice-chairman thus elected shall hold office for one year and be eligible for re-election.

(2) The chairman when present, shall preside at all meetings of the managing committee and meetings of the Area Council and he (or the person performing the duties of chairman) shall have an original as well as a casting vote.

(3) In the absence of the chairman the vice-chairman shall, when present perform the duties of chairman. In the absence of both chairman and vice-chairman the members present shall elect one of their number to perform the duties of chairman.

19. The managing committee of each Area Council may appoint a secretary who shall be either a senior supervisor or supervisor of the Association. If the appointment is not an honorary one, the terms of employment shall be subject to the approval of the Board.

20. The managing committee of each Area Council shall meet not less than once every two months. Subject to the provisions of article 16 (5) they shall regulate their own proceedings, minutes of which shall be duly kept and copies thereof forwarded to the Board as soon as practicable after the holding of each meeting meeting of the managing committee and after each meeting of the Area Council.

## AREA COUNCIL DELEGATES

Funcitons.

21. Each Area Council shall be entitled to elect delegates from amongst the representatives present at the annual general meeting of the Area Council to represent the Area Council at all general meetings of the Association. A pdid officer of the Association shall not be eligible for election as a delegate.

22. (1) Until otherwise determined by the Association in general meeting, each Area Council shall be entitled to elect one delegate and in addition thereto one additional delegate for each 200 members above the first 200 whose names at the date of such election are

registered as members of all District Branches attached to such Area Council for the time being. Provided that if the number of such members shall consist of a multiple of 200 and an additional 101 or more members, an additional delegate may also be elected in respect of those additional 101 or more members.

(2) Delegates elected pursuant to the preceding paragraph of this article shall be elected annually but shall be eligible for re-election.

23. (1) Each Area Council may at any time by resolution of not less than two-thirds of the representatives present and voting at any meeting remove any of its delegates and may be ordinary resolution elect another person in his place.

(2) The office of a delegate shall be ipso facto vacated:

(a) If he resigns (b) If he becomes bankrupt
(c) If he is removed by a resolution of the relevant District Branch or Area Council as the case may be or
(d) If due to ill health he is incapable of managing his affairs.

Vacancies

24. The managing committee of an Area Council shall have the right to fill by appointment in writing any casual vacancy which may occur among delegates elected to attend the general meeting of the Association. Any appointee must be qualified for election.

Continuance in Office

25. If at any annual meeting of an Area Council no election of chairman and/or vice-chairman or of delegates or of its managing committee or of nominees eligible to be elected as general directors shall take place or if for any reason the annual meeting of the Area Council is not held such persons elected on the previous occasion shall continue to retain their respective positions until re-elected or repaired at the next annual meeting of the Area Council.

Annexure B-10

# CONSTITUTION OF JAMAICA BANANA BOARD

JAMAICA

(Amendments (Law 41-1958)
( effective 1/1/59. )

No.24 - 1953

I assent,

(L.S.)

HUGH FOOT
Governor
1st September, 1953

A LAW to establish a Banana Board charged with the duty of promoting the interests and efficiency of the banana industry of this Island, assisting in the development of that industry, and regulating the purchase, sale, exportation and marketing of bananas and for purposes incidental to or connected with the foregoing purposes.

(The date of any Proclamation issued by the Governor brining the Law into operation)

ENACTED by the Governor of Jamaica with the advice and consent of the Legislative Council and House of Representatives.

## Preliminary

Short title and commencement.

1. This Law may be cited as the Banana Board Law, 1953 and shall come into force on a day to be appointed by the Governor by Proclamation published in the Gazette.

Interpretation

2. In this Law, unless the context otherwise requires "agent" means and agent of the Board and includes any Government department acting for and on behalf of the Board;

"approved association" means an association of persons engaged in the banana industry approved by the Board for the purposes of this Law;

"bananas" includes processed bananas; "the Board" means the Banana Board established in accordance with this Law;

"chairman" means chairman of the Board, and includes any person elected or appointed under this Law to act as chairman temporarily in the place of the chairman (in this Law referred to as "the acting chairman");

"export" with its grammatical variations and cognate expressions, means to take of cause to be taken out of this Island or the territorial waters thereof;

"member" means member of the Board and includes chairman;

"the Minister" means the member of Executive Council charged for the time being with responsibility for the subject of agriculture;

"nominating body" means a body authorised by this Law to nominate a member of the Board.

Establishment and Constitution of Board

Establishment and composition of Board.

3. (1) There shall be established for the purposes of this Law a body to be called the Banana Board.

(2) The Board shall consist of two members nominated by the Governor in Council and five other members nominated by the appropriate nominating bodies, that is to say -

(a) three members nominated by the All Island Banana Growers Association Limited;

(b) One member nominated jointly by the Jamaica Banana Producers Association Limited, the Jamaica Banana Producers Steamship Company Limited and the Jamaica Producers Marketing Company Limited;

(c) one member nominated jointly by United Fruit Company (Jamaica) and Elders and Fyffes Limited.

Temporary nomination.

4. The Governor after consultation with the Minister, may nominate any person to act temporarily in the place of a member of the Board nominated by the Governor in Council in the case of the absence or inability to act of such member and any nominating body may nominate any person to act temporarily

in the place of a member of the Board nominated by that body in the case of the absence or inability to act of such member.

Chairman

5. Subject to the provisions of sections 6 and 7 of this Law members of the Board shall -

(a) at their first meeting in each year or at their first meeting after the commencement of any period when none of the circumstances described at paragraphs (a) and (b) of section 6 of this Law exist elect a chairman from amongst their number, who shall hold office until the first meeting of the Board in the next succeeding year;

(b) In the case of the absence or inability to act of the chairman, elect one of their number to act as chairman temporarily in the place of the chairman.

Contingencies in which alternative provisions apply to office of chairman.

6. If and so long as -

(a) any sum advanced (whether before or after the commencement of this Law) by the Government of this Island or of the United Kingdom for the benefit of the banana industry of this island or any part of such sum or the interest thereon remains unpaid; or

(b) there is in existence any loan to the Board the payment of interest upon which or the repayment of the principal of which is guaranteed by the Government of this Island,

the provisions of subsection (1) and subsection (2) of section 7 of this Law shall have the effect in lieu of the provisions of section 5 of this Law.

Alternative provisions relating to office of Chairman.

7. (1) The Governor in Council shall appoint one of the members to be the chairman and thereupon the chairman elected in accordance with the provisions of section 5 of this Law shall cease to hold office as chairman under the authority of that section.

(2) The Governor may, after consultation with the Board, appoint any member of the Board to act temporarily in the place of the chairman, in the case of the absence or inability to act of the chairman.

(3) Immediately upon the commencement of any period when none of the circumstances described at paragraphs (a) and (b) of section 6 of this Law exist, the chairman appointed in accordance with the provisions of this section shall cease to hold office as chairman under the authority of this section.

Tenure of office of Member.

8. (1) The appointment of every member of the Board shall be evidenced by an instrument in writing, and such instrument shall state the period of office of the member which shall not exceed three years.

(2) Every member shall be eligible for reappointment.

Resignation

9. (1) Any member of the Board, other than the chairman, may at any time resign his office by instrument in writing addressed to the Minister and transmitted through the chairman, and from the date of the receipt by the Minister of such instrument, such member shall cease to be a member of the Board.

(2) The chairman may at any time resign his office by instrument in writing addressed to the Minister and such resignation shall take effect as from the date of the receipt of such instrument by the Minister.

Cancellation of nomination

10. The Governor in Council may, if he thinks it expedient so to do, at any time cancel the nomination of any member of the Board nominated by him, and the appropriate nominating body may, if they think it expedient so to do, at any time cancel the nomination of any member of the Board nominated by them.

Duty to nominate and consequences of failure to do so.

11. (1) Every nominating body shall make their nominations to the Board as soon as possible and shall upon the written request of the Minister, furnish him with the names of the members so nominated by them.

(2) If any nominating body fail to furnish the Minister with the names of such members within thirty days of the receipt by that body of such request the Governor in Council may nominate on behalf of that body any person appearing to him to be qualified as having had experience of and shown capacity in agricultural or commercial matters to be a member of the Board until such time as the power of that body to make nominations to the Board under this Law is duly exercised.

Publication of membership of Board

12. The names of all members of the Board as first constituted and every change in the membership thereof shall be published in the Gazette.

13. (1) The Board shall be a body corporate having perpetual succession and a common seal with power to purchase, lease or otherwise acquire and hold and dispose of land and other property of whatever kind.

(2) The seal of the Board shall be authenticated by the signature of the chairman or one member of the Board authorised to act in that behalf and the Secretary of the Board and such seal shall be officially and judicially noticed.

(3) All documents, other than those required by law to be under seal, made by, and all decisions of, the Board may be signified under the hand of the chairman, any member quthorised to act in that behalf, the Secretary or the general manager of the Board.

(4) The Board may sue or be sued in their corporate name and may for all purposes be described by such name.

Procedure and meetings.

14. (1) The Board shall meet at such times as may be necessary or expedient for the transaction of business, and such meetings shall be held at such places and times and on such days as the Board may determine.

(2) The Chairman may at any time call a special meeting of the Board and shall call a special meeting to be held within seven days of a written requisition for that purpose addressed to him by any two members of the Board.

(3) The Chairman, or in the case of the absence or inability to act of the chairman, the acting chairman shall preside at the meetings of the Board, and the chairman or acting chairman so presiding shall have an original and a casting vote.

(4) The quorum of the Board shal be four including the chairman or acting chairman and in the case of a special meeting called by the chairman under this section the quorum shall include one of the members nominated by the All Island Banana Growers Association Limited.

(5) Subject to the foregoing provisions of this section the Board shall have the power to regulate their own proceedings.

(6) The validity of any proceedings of the Board shall not be affected by any vacancy amongst the members thereof or by any defect in the appointment of a member thereof.

Functions, Duties and Powers of Board.

15. It shall be the duty of the Board -

(a) to promote the interests and efficiency of the banana industry of this Island and to assist in the development of that industry;

(b) to secure the most favourable arrangements for the purchase, handling, transportation, exportation, shipping, marketing and sale of bananas, to purchase bananas and to sell and export the same;

(c) to institute, conduct, finance, assist, and superintend research activities, experiments and operations -

(i) for improvement in the methods of planting and cultivation of bananas;

(ii) for the control and elimination of any disease affecting bananas; and

(iii) for the development of bananas wholly or partially immune to disease.

16. (1) Subject to the provisions of this Law, the Board shall have power, for the purpose of the discharge of their duty under section 15 of this Law -

(a) to carry on all activities the carrying on whereof appears to them to be requisite, advantageous or convenient for or in connection with the discharge of their said duty;

(b) to do anything and to enter into any transaction (whether or no involving expenditure, borrowing, granting of loans or investment of money, the acquisition of any property or rights or the disposal of any property or rights) which in their opinion is calculated to facilitate the proper discharge of their functions or is incidential or conducive thereto.

(2) In particular, and without prejudice to the generality of the foregoing, the Board shall have power -

(a) to control and fix the prices to be said from time to time to growers, producers or agents for bananas and to arrange for these prices to be notified in such manner as the Board shall think fit;

(b) subject to the provisions of the Agricultural Produce Law, to regulate from time to time the grading for sale in the Island for export, of bananas grown or produced in the Island and to arrange for any such grading to be notified in such manner as the Board shall think fit.

Borrowing Powers.

17. (1) Subject to the provisions of subsection (2) of this section the Board may borrow sums required by them for meeting any of their obligations or discharging any of their functions.

(2) The Board shall not borrow any sums whereby the aggregate amount outstanding on loan to the Board at any one time exceeds one hundered thousand pounds without the approval of the Governor in Council, as to the amount, as to the sources of the borrowing and as to the terms on which the borrowing may be effected and an approval given in any respect for the purposes of this subsection may be either unconditional or subject to conditions.

Power of Governor in Council to guarantee borrowings by the Board.

18. (1) With the approval of the House of Representatives the Governor in Council may guarantee, in such manner and on such conditions as he may think fit, the payment of the principal and of interest on any authorised borrowings of the Board.

(2) Where the Governor in Council is satisfied that there has been default in the repayment of any principal monies or interest guaranteed under the provisions of this section, he shall direct repayment out of the general assets and revenue of this Island of the amount in respect of which there has been such default.

Repayment of sums issued to meet guaranteed, and of advances.

19. (1) The Board shall make to the Accountant General, at such times and in such manner as the Governor in Council may direct, payments of such amounts as may be so directed in or towards repayment of any sums issued in fulfilment of any guarantee given under section 18 of this Law, and payments of interest on what is outstanding for the time being in respect of any sums so issued, at such rate as the Governor in Council may direct, and different rates of interest may be directed as respects different sums and as respects interest for different periods.

(2) Any sum advanced (whether before or after the commencement of this Law) by the Government of this Island or of the United Kingdom for the benefit of the banana industry of this Island shall, for the purposes of this Law and for all other purposes, be deemed to be borrowed by the Board and the amount outstanding on such sum and the interest thereon shall be repayable by the Board as if it were a sum issued in fulfilment of a guarantee given under section 18 of this Law.

Remuneration of members.

20. The Board shall pay to each member of the Board, in respect of his office as such, such if any, remuneration and allowances as the Governor in Council may determine and to the chairman, in respect of his office as such, such if any, remuneration and allowances (in addition to any remuneration or allowances to which he may be entitled in respect of his office as a member) as may be so determined.

Appointment of officers, agents and servants.

21. The Board may appoint and employ at such remuneration and on such terms and conditions as they think fit a secretary and such officers, agents and servants as they deem necessary for the proper carrying out of the provisions of this Law.

Delegation of power.

22. (1) The Board may by the majority vote of all the members thereof, delegate to the chairman, or to a general manager or to a committee appointed by the Board, the routine administration of any of the affairs of the Board.

(2) Nothing in this section shall be deemed to authorise the Board to delegate to the chairman or such general manager or committee the power to make regulations or to do any act involving extra-ordinary expenditure or to control or fix the price of bananas.

Access to information from Collector General and Inspector of Agricultural Produce.

23. It shall be lawful for the Board to demand from the Collector General or any officer of his department or from any Inspector of Agricultural Produce such information either written or oral as may from time to time be necessary to enable them to exercise or perform their functions or duties under this Law and it shall be the duty of the Collector General or any such officer or Inspector of Agricultural Produce to supply any such information to the best of his ability.

24. The Board may, with the approval of the Minister, make regulations generally for the better carrying out of the purposes of this Law and in particular bu without prejudice to the generality of the foregoing may make regulations providing for -

(a) the registration of persons growing or producing bananas in this Island and for the manner in which records of the quantities of bananas grown or produced by such persons shall be kept;

(b) the registration of persons processing bananas in this Island for export and for the manner in which records of the quantities of bananas processed by such persons shall be kept;

(c) the measures and methods to be adopted for the effective control and elimination of leaf spot and any other disease affecting bananas; and

(d) the effective control of the delivery of bananas to the Board and for the conditions to be observed with respect to the sale or delivery of bananas to the Board.

Liability of members of Board

25. No member of the Board shall be personally liable for any act or default of the Board done or omitted to be done in good faith in the course of the operations of the Board

26. The Governor in Council may, after consultation with the Chairman, give to the Board directions of a general character as to the policy to be followed in the exercise and performance of their functions in relation to matters appearing to him to concern the public interest and the Board shall give effect to any such directions.

## Financial Provisions.

Special provisions relating to funds of Board.

27. (1) The proceeds of the sale of bananas by the Board shall accrue to and form part of the funds of the Board.

(2) The funds of the Board shall be applied towards the carrying out of their functions or duties under this Law, including the provision of monies for -

Law 9 of

(a) the payment of any cess on bananas imposed under section 21 of the Banana Insurance Law, 1946;

(b) financing the operations of any approved association;

(c) the payment of interest upon any monies borrowed or deemed to be borrowed by the Board and the repayment of such monies.

Reserve Fund

28. (1) The Board shall establish a reserve fund.

(2) The Management of the said fund, the sums to be carried from time to time to the credit thereof, and the application thereof, shall be as the Board may determine, so, however, that no part of the said fund shall be applied otherwise than for the purpose of the Board.

Investments

29. Monies standing to the credit of the Board may from time to time be invested in any securities in which trustees are by statuts authorised to invest in this Island or elsewhere.

Accounts and audit

30. The Board shall keep proper accounts in a form which shall conform with the best commercial standards of their receipts, payments, credits and liabilities and shall submit the same from time to time with vouchers to a duly qualified auditor to be audited.

31. (1) The Board shall in each year prepare and present on or before the 1st day of July to the Governor in Council a report of their proceedings during the twelve months ending on the 31st day of December in the preceding year, including a complete report of their financial position in such form as to secure the provision of separate information in respect of each of the main activities of the Board.

(2) A copy of such report shall be laid on the Table of the House of Representatives and of the Legislative Council and shall be published in the Gazette and in a daily newspaper circulating in the Island.

(3) The Board, shall as soon as may be practicable after the 1st day of October in each year publish in a daily newspaper circulating in the Island, their estimates of revenue and expenditure in respect of the period commencing on the 1st day of January in the following year and ending on the 31st day of December of the same year.

Transitional.

(4) The following provisions shall have effect in relation to the year 1959 -

(a) as respect subsection (1) of this section and report to be prepared and presented in that year shall be in relation to the proceedings of the Board during the period of nine calendar months ending on the 31st day of December, 1958;

(b) as respects subsection (3) of this section the Board shall in that year also prepare and publish during the month of January, their estimates of revenue and expenditure in respect of the period commencing on the 1st day of April, and ending on the 31st day of December in that year.

Control of Purchase, Sale and Exportation of Bananas.

Penalties.

32. (1) From and after the commencement of this Law-

(a) no person shall, without the written permission of the Board, purchase from or sell to any person other than the Board any bananas;

(b) The Board shall, upon being required so to do by the owner of any bananas suitable, in the opinion of an Inspector of Agricultural Produce, for export, purchase such bananas at the then current prices fixed by the Board in accordance with this Law;

(c) no person other than the Board shall export or attempt to export any bananas; Provided however, that the Board may grant permission in writing to any person to export specified quantities of bananas.

(2) In this section "Inspector of Agricultural Produce" means an inspector of Agricultural Produce appointed under the Agricultural Produce Law.

(3) Any person contravening the provisions of paragraph (a) or (c) of subsection (1) of this section shall be guilty of an offence against this Law and shall be liable no summary conviction before a Resident Magistrate to a fine not exceeding one thousand pounds and in default of payment

thereof to imprisonment with or without hard labour for a term not exceeding twelve months, and upon each subsequent conviction shall be liable, in addition to any fine which may be imposed by the Court, to imprisonment with a or without hard labour for a term not exceeding twelve months.

(4) Where a company is guilty of an offence under this section every director, manager, agent and officer of the company in this Island who is knowingly a party to the contravention shall be guilty of a like offence and liable to a like penalty.

(5) Any bananas dealt with contrary to the provisions of paragraph (a) or (c) of sub-section (1) of this section may be seized by the Board and shall be forfeited to the Board and disposed of in such manner as the Board may direct.

(6) This section shall not apply to the purchase or sale of bananas for consumption in this Island.

Transitional Provisions. Amendment and Repeal

Transitional provisions

33. (1) Forthwith upon the commencement of this Law-

(a) all the assets (including real and personal property) of -

(i) the Banana Leaf Spot Control Board established under the Banana (Leaf Sport Control) Law, 1939 (Hereby repealed); and

(ii) the Banana Registration Authority established under the Banana Industry Regulation Law (hereby repealed).

shall be vested in and transferred to the Board established under this Law;

(b) in any case in which a contract relating to the marketing or shipping of bananas has been entered into by the Commissioner of Commerce and Industries (referred to in such contract as the Banana Authority) the Board shall be deemed to be a party to the contract, and to be the Banana Authority referred to in such contract;

(c) every agreement entered into by or on behalf of the Commissioner of Commerce and Industries of other Government authority with any other person, relating to the sale or the development of bananas in this island for export and subsisting immediately before the commencement of this Law, shall for all purposes be construed as if it has been entered into with such other person by the Board.

(2) Where immediately before the commencement of this Law any person was entitled to recover from a Government authority any liquidated sum of money in respect of any transaction relating to the sale of bananas for export, such person shall be entitled to recover such sum from the Board as if the Board were such Government authority and as if this Law had not been enacted.

(3) In this section "Government authority" includes any Competent Authority under the Jamaica Defence Regulations, 1940.

34. (1) The Banana (Leaf Spot Control) Loan Law, 1939 is hereby amended by deleting the words" the Banana Leaf Spot Control Board" from subsection (2) of Section 3 of the Law and inserting instead the words "the Banana Board established under the Banana Board Law, 1953."

(2) The Laws mentioned in the Schedule to this Law are hereby repealed.

S C H E D U L E (Section 34(2)

| Chapter or Number and Year | Short title |
|---|---|
| Chapter 305 | The Banana Industry Regulation Law |
| Law 15 of 1947 | The Banana Industry Regulation (Amendment) Law, 1947 |
| Law 21 of 1939 | The Banana (Leaf Spot Control) Law, 1939 |
| Law 46 of 1942 | The Banana (Leaf Spot Control) (Amendment) Law, 1942 |

Annexure B-11

# BANANA INSURANCE LAW IN JAMAICA (1946)

## CHAPTER 27

## THE BANANA INSURANCE LAW*

## ARRANGEMENT OF SECTIONS


Part I. Introductory

1. Short title
2. Interpretation

Part II. Qualification for, determination and payment of, benefit.

3. Statutory insurance
4. Qualification for statutory benefit
5. Contractual insurance
6. Qualification for contractual benefit
7. First general condition for benefit
8. Second general condition for benefit
9. Third general condition for benefit
10. Special condition for statutory benefit
11. Amount of benefit
12. Determination of indemnity percentage
13. Payment of benefit

Part III. Procedure for Assessing Incidence of Damage

14. Return claiming benefit
15. Inspection to be made
16. Board to define areas and declare average percentage of loss
17. Establishment of review tribunal
18. Review of assessment by tribunal

Part IV. Financial Provisions

19. Establishment of Banana Insurance Fund
20. Investments
21. Imposition of cess


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*Incorporating modifications brought out in Amendment to the Banana Insurance Law (1965). Since 1965, Banana Insurance is administered by other Banana Board.

22. Payment and collection of the cess
23. Loans
24. Re-insurance
25. Application of funds of Board
26. Audit
27. Exemption of Board's income from income tax
28. Income tax on benefit

Part V. Administrative Provisions

29. Establishment and incorporation of Board
30. Membership of Board
31. Chairman
32. Grant of leave of absence to members
33. Retirement of members
34. Co-option of members
35. Liability of members of the Board
36. Meetings and procedure threat
37. Appointment of officers and servants
38. Regulations
39. Penalties
40. Annual report
41. Returns

# CHAPTER 27

## THE BANANA INSURANCE LAW
(24th October, 1946)

### PART I. Introductory

Short title

1. This law may be cited as the Banana Insurance Law. Section 1 of the Amendment to the Banana Insurance Law (1965) reads as:

> "this Act may be cited as the Banana Insurance (Amendment) Act, 1965 and shall be read and construed as one with the Banana Insurance Law (hereinafter referred to as the principal Law) and all ammendments thereto, and shall come into operation on a day to be appointed by the Minister by notice published in the Gazetta"

2. (1) In this Law -

'affected cultivation' means any banana cultivation which is damaged by windstorm;

"appropriate tribunal" means any tribunal established under section 17 of this Law having the power to exercise the powers conferred and to perform the duties imposed under Section 18 of this Law in relation to any application for the review of any assessment of the average percentage of loss suffered by banana cultivations in any area;

"area" means any area defined by the Board under section 16 of this Law;

"assessed acreage" means the acreage of any banana cultivation as computed in accordance with the provisions of subsection (2) of Section 3 of this Law;

"assessed percentage of loss" means the percentage of loss assessed by the Board in accordance with the provisions of Section 16 of this Law;

"banana cultivation" means any parcel of land on which bananas are grown immediately prior to any windstorm with a view to export or to sale for export;

"banana grower" means any person for the time being in possession or control of any banana cultivation;

"Board" means the Banana Board established in accordance with the Law 24 of Banana Board Law, 1953;

"cess" means the cess imposed under Section 21 of this Law;

"indemnity percentage" means the indemnity percentage as determined in accordance with the provisions of Section 12 of this Law;

"insurance year" means the period beginning on the 1st January in any year and ending with the 31st December in the same year;

"qualified person" means -

(a) in relation to statutory benefit, a person who is qualified under Section 4 of this Law to receive statutory benefit; and

(b) in relation to contractual benefit, a person who is qualified under Section 6 of this Law to receive contractual benefit;

"windstorm" means any hurricane, tornado, cyclone, whirlwind, gale, or atmospheric disturbance, whether similar to the foregoing or not, which the Board is satisfied is likely to have caused appreciable damage to any banana cultivation.

(2) For the purposes of this Law -

(a) bananas sold for the purpose of being exported and in respect of which cess has been collected shall be deemed to have been exported;

(b) a count bunch of bananas shall be calculated as follows:

| | | |
|---|---|---|
| A stem of bananas having | 9 ore more hands | = 1 count bunch |
| " | 8 hands | = $\frac{3}{4}$ count bunch |
| " | 7 hands | = $\frac{1}{2}$ count bunch |
| " | 6 hands | = $\frac{1}{4}$ count bunch |

PART II. Qualification for, determination of, and payment of, benefit

Statutory insurance

3. - (1) Every banana grower shall be statutorily insured under this Law, in respect of the assess acreage of his

banana cultivation, against loss consequent upon damage to such cultivation occassioned by windstorm.

(2) For the purposes of this Law the assessed acreage of any banana cultivation in any insurance year shall be computed by dividing the total number of count bunches of bananas grown upon such cultivation and exported or deemed to have been exported or sold for export during the preceding insurance year by the declared constant.

(3) For the purposes of sub-section (2) of this section -

(a) the declared constant shall be one hundred and twnety unless varied in relation to any insurance year as in this sub-section provided;

(b) the Governor in Council may, in any insurance year, after considering any recommendation of the Board, vary the figure above referred to and declare a figure to be the declared constant for such insurance year.

Qualification for statutory benefit

4. Every banana grower who in relation to any affected cultivation complies both with the general conditions for benefit and with the special condition for statutory benefit shall be qualified to receive statutory benefit in respect of damage occassioned to such cultivation in any insurance year by any windstorm.

5. (1) Every banana grower who within a period commencing fourteen months before the beginning of an insurance year and ending on the 31st May in such insurance year, has either -

(a) replanted in bananas the whole or any part of his banana cultivation; or

(b) brought under cultivation in bananas any land on which bananas were not previously cultivated during the preceding insurance year;

may, in accordance with the provisions of this section, effect contractual insurance against loss occassioned to such bananas consequent upon the occurrence of any windstorm during such insurance year.

(2) Where a banana grower satisfied the Board that his actual acreage under cultivation in bananas in any insurance year, after excluding any acreage in respect of which he may effect contractual insurance under sub-section (1) of this section, is in excess of his assessed acreage, then he may in accordance with the provisions of this section effect contractual insurance in respect of such excess acreage against loss occassioned to the bananas on such excess acreage consequent on the occurrence of any windstorm during such insurance year.

(3) Every banana grower who desires to effect contractual insurance shall, before the 1st July in the insurance year in which he desires to effect insurance -

(a) in the case of insurance effected under sub-section (1) of this section, after he has replanted or first brought under cultivation any bananas, make application in the prescribed from to the Board, specifying, inter alia -

(i) the total acreage replanted or first brought under cultivation, as the case may be within the period referred to in sub-section (1) of this section and the date when such acreage was so replanted or first brought under cultivation; and

(ii) the acreage so replanted or first brought under cultivation in respect of which he desires to effect contractual insurance; and

(iii) the acreage so replanted or first brought under cultivation which he elects to exclude from contractual insurance as is in this section mentioned;

(b) in the case of insurance effected under sub-section (2) of this section, make application in the prescribed form to the Board, specifying inter alia, his actual acreage under banana cultivation, his assessed acreage and any acreage in respect of which he desires to effect contractual insurance under sub-section (1) of this section; and

(c) in either such case, forward with such application the necessary premium for the acreage in respect of which he desires to effect contractual insurance: Provided that no contractual insurance may be effected in respect of any acre on which there is planted less than three hundred banana trees.

(4) The premium payable shall be such sum for each acre in respect of which contractual insurance is desired as may be prescribed by regulations under Section 38 of this Law.

(5) No contractual insurance may be effected to cover any loss consequent upon a windstorm which occurred prior to the receipt by the Board of the application and the necessary premium.

(6) The Governor in Council may, after considering any recommendation of the Board, in respect of any insurance year, by order vary -

(a) the commencing and ending dates of the period referred to in sub-section (1) of this section;

(b) the date and the minimum number of banana trees to an acre mentioned in sub-section (3) of this section;

(c) the amount of premium payable under sub-section (4) of this section in respect of each acre.

Provided that any order made under this sub-section shall be made prior to the commencement of the insurance year in respect to which such order relates.

Qualification for contractual benefit

6. Every banana grower who, in relation to any affected cultivation or part thereof, has effected contractual insurance under this Law and who complies with the general conditions for benefit shall be qualified to receive contractual benefit in respect of the damage occassioned by windstorm during the relevant insurance year to bananas growing upon the acreage in respect of which he effected such insurance.

First general condition for benefit

7. - (1) The first general condition for the receipt of benefit by a banana grower is that the affected cultivation has suffered damage to an extent not less than the minimum statutory percentage or is situate in an area which in the opinion of the Board has suffered damage to an extent not less than the minimum statutory percentage.

(2) For the purposes of sub-section (1) of this section -

(a) the minimum statutory percentage shall be forty per cent; unless varied in relation to any insurance year as is in this sub-section provided;

(b) the Governor in Council may, in any insurance year, after considering any recommendation of the Board, vary the minimum statutory percentage for such insurance year.

8. The second general condition for the receipt of benefit by a banana grower is that he makes application for benefit in such manner within such time and in such form as may be prescribed and affords to the Board and to any person authorized by the Board such information

and such opportunity of inspecting any books or records kept by him in relation to his banana cultivation and of inspecting any damage to his banana cultivation as may be required by the Board.

Third general condition for benefit

9. The third general condition for the receipt of benefit by a banana grower is that he shall, if required so to do -

(a) enter into an undertaking in such form as may be prescribed to apply the whole or such part of any sum received by him by way of benefit as the Board may specify to the restoration, rehabilitation or extension of his banana cultivation; and

(b) in the case of an insured person who has previously received benefit, satisfy the Board that the whole or such part of any benefit so previously received by him as the Board may have specified was expanded in the restoration, rehabilitation or extension of his banana cultivation.

Special condition for statutory benefit.

10. The special condition for the receipt of statutory benefit by an insured person is that he proves that he or some other person from whom he derived title to the affected cultivation exported or sold for exports or is deemed to have exported during the previous insurance year bananas grown upon such cultivation.

Amount of benefit

11. - (1) Every qualified person shall receive in relation to any affected cultivation;

(a) by way of statutory benefit, for every acre of the assessed acreage of such cultivation, a sum of money equivalent to the indemnity percentage of the declared unit of benefit;

(b) by way of contractual benefit, for every acre in respect of which he has effected contractual insurance, a sum of money equivalent to the indemnity percentage of the declared unit of benefit.

(2) For the purposes of this section -

(a) Unless varied in relation to any insurance year as is in this sub-section provided, the declared unit of benefit shall be twelve pounds ten shillings;

(b) the Governor in Council may in any insurance year, after considering any recommendation of the Board, vary the declared unit of benefit and declare an amount to be the declared unit of benefit for such insurance year.

Determination of indemnity percentage

12. - (1) The indemnity percentage in relation to any affected cultivation shall be determined by deductin from the assessed percentage of loss in relation to such cultivation the statutory deductible percentage.

(2) For the purposes of this section -

(a) Unless varied in relation to any insurance year as is in this sub-section provided, the statutory deductible percentage shall be twenty per cent of the entire risk.

(b) The Governor in Council may in any insurance year, after considering any recommendation of the Board, vary the statutory deductible percentage and declare the statutory deductible percentage for such year.

Payment of benefit

13. - (1) Subject to the provisions of sub-section (2) of this section, every insured person who is qualified to receive any statutory benefit under section 4 of this Law or any contractual benefit under section 6 of this Law shall be paid such benefit so soon as may be after the Board have computed the amount of benefit payable to him.

(2) The Board may deduct from any benefit payable to any insured person any sum owed by him to the Board under this Law.

## PART. III. Procedure for Assessing Incidence of Damage

14. - (1) Every banana grower whose banana cultivation is damaged by any windstorm shall, within the prescribed time after the occurrence of such windstorm or within such further period as the Board may, in any special case, permit make a return to the Board in the prescribed form claiming benefit in respect of the loss occassioned to him by such windstorm.

(2) Every return under sub-section (1) of this section shall contain in relation to the affected cultivation such particulars as may be prescribed and shall estimate in the prescribed manner the percentage of damage, other than excluded damage, suffered by such cultivation consequent upon such windstorm.

(3) Every return under sub-section (1) of this section shall be accompanied by a deposit of such sum of money as the Board may prescribe, and -

(a) where the assessed percentage of loss is less than forty per cent; or

(b) where the estimate of the percentage of loss contained in such return is greater than the assessed percentage of loss by more than seven and one half per cent.

every such deposit shall be forfeited to the Board.

(4) In this section "excluded damage" means damage to any bananas growing upon any acreage as to which the banana grower elected to exclude from any contractual insurance as provided in sub-section (3) (a) (iii) of section 5 of this Law.

15 - (1) So soon as may be after the occurrence of any windstorm in respect of which the Board receive

any claim for benefit under section 14 of this Law, or consider that they are likely to receive any such claim, the Board shall, for the purpose of complying with section 16 of this Law, cause an inspection to be made of any affected cultivation in respect of which any such claim has been made or of any region within which they consider any affected cultivations are likely to be comprised.

(2) So soon as may be after the completion of any inspection under sub-section (1) of this section every inspector shall, subject to the directions of the Board, make a report to the Board either -

(a) estimating the percentage of loss suffered by any affected cultivation in respect of which a claim for benefit under section 14 of this Law has been received by the Board; or

(b) (i) containing a fair estimate of the incidence of damage occassioned by the windstorm in the region to which the report relates;

(ii) specifying the various areas within such region which in the opinion of the inspector have suffered an approximately similar percentage of damage and the boundaries of such areas;

(iii) estimating the approximate average percentage of damage suffered by banana cultivations situate in such area.

(3) In making the estimate referred to in paragraph (a) or paragraph (b) (iii) of sub-section (2) of this section regard shall be had only to the number of banana trees (other than banana trees to which sub-section (4) of this section relates) which, immediately before the windstorm in respect of which the inspection

is made, were growing upon any affected cultivation which is inspected and which were rendered incapable of producing at maturity fruit of merchantable quality, by reason of the windstorm.

(4) In making the estimate referred to in paragraph (a) or paragraph (b) (iii) of sub-section (2) of this section regard shall not be had to any young plants or to any banana trees which immediately before the windstorm in respect of which the inspection is made were growing upon any acreage as to which the banana grower elected to exclude from any contractual insurance as provided in sub-section (3) (a) (iii) of section 5 of this Law.

(5) For the purposes of this section "young plants" means banana trees which the grower shall satisfy the inspector were planted subsequent to the 31st October last preceding the windstorm in respect of which the inspection is made.

Board to define areas and declare average percentage of loss

16. So soon as may be after the receipt of any report under sub-section (2) of section 15 of this Law, the Board shall consider such report and shall consider any claim under section 14 of this Law and the Board shall, in its absolute discretion, either -

(a) assess the percentage of loss suffered by each affected cultivation in respect of which a claim under section 14 of this Law has been made; or

(b) (i) define the area within which are comprised affected cultivations which have suffered an approximately similar percentage of damage; and

(ii) assess the average percentage of loss suffered by affected cultivations within each such area consequent upon the windstorm in respect of which the assessment is made.

Establishment of review tribunal

17. - (1) For the purposes of section 18 of this Law there shall be established in such manner as may be prescribed so many tribunals as may be prescribed each of which shall, in relation to such areas as the Board may specify, exercise the powers conferred and perform the duties imposed by section 18 of this Law.

(2) Every tribunal established under subsection (1) of this section shall consist of three members.

18. - (1) (a) Where, in the case of an assessment under paragraph (a) of section 16 of this Law, any banana grower is dissatisfied with such assessment he may within the prescribed time make application to the Board in the prescribed manner for a review by the appropriate tribunal of such assessment.

(b) Where, in the case of an assessment under paragraph (b) of section 16 of this Law, any number of banana growers who together control not less than fifty per cent of the aggregate acreage of all the affected cultivations situate within any area are dissatisfied with such assessment they may within the prescribed time make application to the Board in the prescribed manner for a review by the appropriate tribunal of such assessment.

(2) Every application under subsection (1) of this section for the review of any assessment shall be accompanied by the prescribed deposit.

(3) So soon as may be after the receipt of any application under subsection (1) of this section for the review of any assessment, the Board shall refer such application to the appropriate tribunal together with all the information, reports, returns or records which the Board considered in making such assessment.

(4) As soon as may be after the appropriate tribunal receives from the Board any application for the review

of any assessment, the tribunal shall consider such application together with all documents relating to such assessment and shall take such steps, whether by inspecting or causing to be inspected the affected cultivation or cultivations situated in the area to which such application relates (as the case may be) or otherwise, as the tribunal in its absolute discretion may think necessary to determine the accuracy or otherwise of such assessment, and shall make a report to the Board.

(5) In the case of an application for review under paragraph (a) of subsection (1) of this section, if the appropriate tribunal reports to the Board that in the opinion of the tribunal the percentage of loss suffered by the affected cultivation to which the application relates -

(a) does not exceed the assessment by more than seven and one half per cent; then the assessment for all purposes shall be final and conclusive and the deposit paid under subsection (2) of this section shall be forfeited to the Board;

(b) exceeds the assessment by more than seven and one half per cent; then the assessment shall be amended by the substitution for the percentage specified therein the percentage which in the opinion of the tribunal is the percentage of loss suffered by the affected cultivation and the deposit paid under subsection (2) of this section shall be refunded.

(6) In the case of an application for review under paragraph (b) of subsection (1) of this section if the appropriate tribunal reports to the Board under subsection (4) of this section that in the opinion of the tribunal the average percentage of loss suffered by banana cultivations in the area to which the application relates does not exceed by more than seven and

one half per cent the assessment under paragraph (b) of section 16 of this Law in respect of which the application for review was made, the assessment by the Board shall for all purposes by final and conclusive and the deposit paid under subsection (2) of this section in relation to the application for review shall be forfeited to the Board.

(7) In the case of an application for review under paragraph (b) of subsection (1) of this section if the appropriate tribunal reports to the Board under subsection (4) of this section that in the opinion of the tribunal the average percentage of loss suffered by banana cultivations in the area to which the application relates exceeds by more than seven and one half-per cent the assessment under paragraph (b) of section 16 of this Law in respect of which the application for review was made, the assessment shall be amended by the substitution for the percentage specified therein the percentage which in the opinion of the tribunal is the average percentage of loss suffered by banana cultivations in the area to which such application relates, and the deposit paid under subsection (2) of this section shall be refunded to the persons by whom it was paid.

(8) In this section "assessment" means any assessment made by the Board under section 16 of this Law.

## PART IV. Financial Provisions

19. - (1) For the purposes of this Law there shall be established under the control and management of the Board a fund called the Banana Insurance Fund.

(2) The proceeds of the cess raised, levied or collected under section 21 of this Law and any premiums paid to the Board under section 5 of this Law and any moneys borrowed by the Board under section 23 of this Law and any sums received by the Board by way of re-insurance or from the sale of any of their assests, or otherwise under this Law shall be paid into the Banana Insurance Fund.

20. Any moneys forming part of the Fund shall from time to time -

(a) be invested in such manner as the Governor in Council may approve, in the public securities of the United Kingdom of Great Britain and Northern Ireland, or of Jamaica or of any British Dominion, or Colony, or such other securities as the Governor in Council may from time to time approve; or

(b) be placed on deposit with the Accountant-General or in such bank or banks as the Board may, with the approval of the Governor in Council, from time to time direct.

Imposition of cess

21. - (1) There shall be raised, levied and collected for the purposes of this Law a cess upon each steam of bananas -

(a) exported from Jamaica; or

(b) purchased for the purpose of being exported, irrespective of whether or no such stem of bananas is subsequently exported from Jamaica.

(2) Subject to the provisions of subsection (3) of this Section, the cess shall be four-pence on each count bunch of bananas.

(3) The Governor in Council may, after considering any recommendation of the Board, from time to time by order vary the amount of the cess.

Payment and collection of the cess

22. - (1) The cess shall be paid by every banana grower and shall be collected and paid over by the exporter in accordance with regulations made under section 38 of this Law.

(2) Any exporter who fails -

(a) to collect or to pay over, in accordance with the regulations, any cess or any part thereof due under this Law; or

(b) to comply with any regulations relating to any such collection of payment over,

shall be guilty of an offence against this Law.

(3) Where an exporter has been convicted of a second offence under the provisions of paragraph (a) of sub-section (2) of this section, the Board may recommend to the Governor in Council the revocation of any licence issued to such exporter under the provisions of the Banana Industry Regulation Law.

(4) Nothing in this section contained shall be deemed to prejudice or interfere with the right of the Board to recover from an exporter the amount of any cess due to be collected and paid over by him.

Loans

23. - (1) Whenever the Governor in Council is satisfied by the Board that there is reason to anticipate that the moneys standing to the credit of the Fund are insufficient to enable the Board to discharge their liabilities in respect of benefit under this Law, the House of Representatives may by resolution authorise the Board to borrow such sums as may be specified in the resolution:

Provided that the Board shall not be authorised to borrow any sums whereby the aggregate amount outstanding on loan to the Board under this Law at any

one time exceeds six hundred thousand pounds sterling.

(2) Any loan authorised under subsection (1) of this section or any part of such loan may be raised by the Board by the issue of stock or debentures or both in such form and on such conditions as may be approved by the Governor in Council or by such other means as may be approved by the Governor in Council, and the principal moneys and interests represented by such stock, debentures or loan are hereby charged upon and shall be payable out of the funds and assets which accrue to the Board under this Law.

(3) The principal moneys and interest represented by any loan authorised under subsection (1) of this section are hereby guaranteed by the Government of Jamaica and in the event of default in the payment thereof by the Board shall be charged upon and be payable out of the general revenue and assets of the Government of Jamaica.

Reinsurance

24. The Board may effect re-insurance in respect of the whole or any part of the potential liability incurre by them for the payment of benefit under this Law at such rates and subject to such conditions as the Governor in Council may deem reasonable.

25. - (1) Subject to the provisions of subsection (2) of this section, the moneys forming part of the funds of the Board under this Law shall be applied towards -

(a) the payment of all expenses incurred by the Board in the execution of the provisions of this Law;

(b) the payment of any sums by way of premiums on the re-insurance of any potential liability incurred by the Board under this Law;

(c) the payment of benefit to insured persons in accordance with the provisions of this Law;

(d) the payment of interest upon any moneys borrowed by the Board under this Law and the repayment of such moneys;

(e) the creation of such a reserve fund as the Board may, with the approval of the Governor in council consider adequate for the purposes of this Law.

(2) So soon as the Governor in Council is satisfied that the assets of the Fund are in excess of the amount necessary to meet any liability which can reasonably be anticipated the Governor in Council may authorise the Board to apply the whole or any part of such excess in any manner which the Governor in Council deems to be conducive to the interest of the banana industry.

Audit

26. The Board shall keep separate accounts relating to their activities under this Law and such accounts shall be audited annually and where there is any amount outstanding on loan to the Board under section 23 of this Law such annual audit shall be made by the Auditor General.

Exemption of Board & income from income tax S.12 of 49/1949

27. Notwithstanding anything to the contrary in any Law, the income of the Board under this Law shall not be liable to the payment of income tax.

28. Notwithstanding anything to the contrary in any Law, where the whole of any monies received by any banana grower by way of statutory benefit or of contractual benefit has not been applied by such banana grower for the restoration or rehabilitation of his banana cultivation in the year in which such monies were received only such amount thereof as has been so applied shall be deemed for the purposes of the Income-tax Law to be income derived or received in such year.

Provided that the remaining portion thereof shall be deemed to be income derived or received in the next succeeding year.

## Part V. Administrative Provisions

29. - (1) The Board shall be deemed to be to all intents and purposes the successor of the Banana Industry Insurance Board constituted under this Law before the commencement of the Banana Insurance (Amendment) Act, 1965 and without prejudice to the generality of the foregoing provisions of this section, the funds assets, rights and liabilities of the said Banana Industry Insurance Board are hereby transfered to and vested in the Board accordingly.

(2) Unless and untill other arrangements are made under section 21 of the Banana Board Law, 1953, all officers and servants holding office under the said Banana Industry Insurance Board (in this subsection referred to as the former Board) immediately prior to the commencement of the Banana Insurance (Amendment) Act,

1965, shall, from and after the commencement of the Act, hold under the Banana Board the like respective offices or employments and by the same tenure and upon the same terms as therefore they held those offices under the former Board, and a superannuation scheme of the former Board for the benefit of their employees and trusts constituted in that behalf, the terms of which include provision for the determination of such trusts and the winding up of the affairs thereof in the case of dissolution of that Board by Law, shall continue to be carried out, but not in relation to any employees other than those who joined the scheme before the commencement of the said Act as if the place of the former Board in relation to such scheme and trusts had been taken by the Banana Board as from the commencement of the said Act, and such terms shall be construed and have effect accordingly.

(3) Any officer in the employment of the Board by virtue of his appointment from the service of the Island to an office under the Banana Industry Insurance Board with such approval in that behalf as was required by this Law before the commencement of the Banana Insurance (Amendment) Act, 1965 shall in relation to pension, gratuity, allowance and to other rights as a public officer, be deemed to be in such service while so employed

Meeting and procedure threat

36. - (1) A meeting at which business under this law is transacted by the Board shall be held by the Board at least once in every month.

(2) The Board may from time to time delegate to any member, officer or servant of the Board, or to any committee thereof appointed by the Board, authority to carry out such portions of the duties committed to the Board by this Law as they may from time to time determine.

Regulations

38. - (1) The Board may make regulations for the better carrying out of this Law and generally for giving effect the provisions of this Law and, without prejudice to the generality of the foregoing, for the collection and payment over the cess.

(2) Regulations made by the Board under subsection (1) of this section shall have no effect until approved by the Governor in Council who may alter, add to or amend such regulations.

39. Every person guilty of an offence against this Law or against any regulations made thereunder shall be liable on summary conviction before a Resident Magistrate to a fine not exceeding five hundred pounds or to imprisonment with hard labour for any period not exceeding twelve months or to both such fine and imprisonment.

41. - (1) Within such period as may be prescribed every banana grower shall make a return to the Board in relation to each of his banana cultivations.

(2) Every return under subsection (1) of this section shall -

(a) be in such form as may be prescribed;

(b) specify the acreage of the banana cultivation to which it relates which is actually cultivated in bananas; and

(c) contain such other particulars in relation to such banana cultivation as may be prescribed.

41 A - Nothing in this Law shall be deemed to abrogate any functions, powers or duties assigned to the Board by the Banana Board Law, 1953.

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(i) Sections 30, 31, 32, 33, 34, 35, 37 and 40 of the principal Law have been repealed under Amendment to the Banana Insurance Law (1965).

(ii) "Anything lawfully done by virtue of the principal Law before the date of the commencement of this Act and which but for the respective amendments hereby effected would have continued to have effect after that date shall, except in so far as the contrary intentions appears, continue to have effect as if done by virtue of the principal Law as hereby amended"

Annexure B-12

QUALITY CONTROL IN BANANAS IN JAMAICA

## Assessment of Carton Cargoes from Recorded Measurements.

All assessments are controlled by the packing specification for any quality level as modified by the necessity to allow for reasonable deterioration during shipment.

(Arrangements presently in force with the Jamaica Banana Board require that the results for individual packers are recorded).

### The Summary Form (QC 2)

Summarised figures from the inspection sheets are transferred to the QC2 by Quality level and mark, making sure of the following:-

(i) Number of cartons in the sample, also hand, cluster and loose finger totals are accurate.

(ii) 'Other' defects are accurately totalled and shown by degree.

(iii) Finger length totals include clusters.

(iv) Grade figures are on a carton basis.

### NOTES

(i) No damage relating to discharge is to be included. This includes fresh latex.

(ii) Clusters will be assessed on a hand basis when inspected. 3 clusters represent as nearly as possible one hand.

### Assessment of the Marks (Take each mark in turn)

(a) Each hand or part hand is allowed an initial quota of points. The relation of the sample to 100% acceptance standard is the arithmetical total of allowed points in the sample divided by the defect points for the same sample and expressed as a percentage.

A list of allowances and deductions is attached.

(b) All hand and part hand defects, with the exception of small hands below the agreed specification, have a penalty of 1; 3; or 5 points according to the severity of the blemish.

Each of the columns of figures should be totalled up and multiplied by the appropriate factor (1,3 or 5). Small hands and part hands, noted separately on the form added in. The same applies to grading, measured on a carton basis.

This should then give the total penalty recorded against the sample.

(c) To assess the degree to which the sample met overall the appropriate specification for fruit on discharge.

(i) Multiply the number of hands by the appropriate quality allowance; 10, 7 or 6. Add in the points for part hands, if any.

(ii) Devide the allowance figure by the defect figure and express the results as a percentage.

(d) We now have for each mark either three:-

First class
Small First class
Second class

or two:-

First class
Second class

sets of figures.

It is necessary relate these to the percentage of 'first class' fruit in the sample and thence in the parcel shipped.

The relationship of 'seconds' in quality to firsts meeting specification has always been taken as 2/3 i.e. the value of a box of seconds meeting second class specification is 2/3 of that of a box of firsts meeting first class specification. The points allowance is automatically made on that basis. An example is given below:

EXAMPLE

A shipper sends 750 cartons; of which 350 are packed as standard firsts; 250 are small firsts and 150 are seconds.

The assessments are as follows:-

(Next page)

| Packed quality | % met appropriate specification |
|---|---|
| Fruits | 90% |
| Small Firsts | 85% |
| Seconds | 95% |

This then works out as follows:-

$$\frac{350 \times 90}{100} = 315.0000$$

$$\frac{250 \times 85}{100} = 212.5000$$

$$\frac{150 \times 95 \times 2}{100 \times 3} = 95.0000$$

622.5000

This figure when divided by the total parcel of 750 gives the true percentage in terms of first class specification of all the fruit from this packer = 83.00%

(e) Assessment by ship totals is carried out in the same manner.

APPENDIX:

Points Basis for evaluating quality

A) Allow:-

| | |
|---|---|
| First class | 7 points per hand |
| Small First Class | 6 points per hand |
| Second class | 10 points per hand |
| Clusters | 2 points each. |

B) Deduct:-

| | | | |
|---|---|---|---|
| Light defect | 1 point | Losse Finger | 3 points |
| Medium defect | 3 points | Mutilated Finger | 3 points |
| Severe defect | 5 points | Colour (4 & above) | 5 points |
| Anthracnose (case) | 1 point | Small hand | 7 points |
| Split crown | 1 point | Small hand (below 6½") | 10 points |

(Contd. next page)

| | |
|---|---|
| Knife Slash | 1 point |
| Malformed Hand | 1 point |
| Fused Finger | 1 point |
| Slum or socket | 1 point |
| Other recorded defect | 1 point |

| Grade (per carton) | | 23-lb. unit | 46-lb. unit |
|---|---|---|---|
| Satisfactory | (1) | 0 | 0 |
| Too thin | (2) | 3 | 5 |
| Too full | (3) | 5 | 10 |
| Varied Grade | (4) | 5 | 10 |

Q.C. 2

PORT.....  No.....

## DISTRIBUTION OF DEFECTS SS/MV

QUALITY.....  FRUIT  CARTONS

| | MARK | | | MARK | | | MARK | | | MARK | | | MARK | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HANDS | | CTNS | HANDS | | CTNS | HANDS | | CTNS | HANDS | | CTNS | HANDS | | CTNS |
| DEFECTS | CL | LF | MF | CL | LF | MF | CL | LF | MF | CL | LF | MF | CL | LF | MF |
| N. DAM | | | | | | | | | | | | | | | |
| N. ROT | | | | | | | | | | | | | | | |
| C.R. MOULD | | | | | | | | | | | | | | | |
| C.R. ROT | | | | | | | | | | | | | | | |
| BRUISING | | | | | | | | | | | | | | | |
| SCARRING | | | | | | | | | | | | | | | |
| THRIPS | | | | | | | | | | | | | | | |
| SPECKLE | | | | | | | | | | | | | | | |
| SCRATCHING | | | | | | | | | | | | | | | |
| THRIPS | | | | | | | | | | | | | | | |
| SPECKLE | | | | | | | | | | | | | | | |
| SCRATCHING | | | | | | | | | | | | | | | |
| CAT-SCAB | | | | | | | | | | | | | | | |
| LATEX | | | | | | | | | | | | | | | |
| DIRT | | | | | | | | | | | | | | | |
| SUNBURN (Y1T.) | | | | | | | | | | | | | | | |
| AN OTHER | | | | | | | | | | | | | | | |
| GRADE | ST | | FV | ST | | FV | ST | | FV | ST | | FV | ST | | FV |
| Finger LENGTH | S | SM | V | S | SM | V | S | SM | V | S | SM | V | S | SM | V |
| LABELS | S | F | N | S | F | N | S | F | N | S | F | N | S | F | N |
| PACK | G | F | P | G | F | P | G | F | P | G | F | P | G | F | P |

Annexure C-1

## WORLD PRODUCTION OF ORANGES AND TANGERINES

(Thousand Tonnes)

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| USA | 5,650 | 4,158 | 3,709 | 4,885 | 5,648 |
| Brazil | 1,918 | 2,017 | 2,280 | 2,223 | 2,485 |
| Spain | 1,838 | 1,327 | 1,976 | 1,777 | 1,921 |
| Japan | 1,060 | 1,083 | 1,113 | 1,437 | 1,554 |
| Italy | 927 | 828 | 1,066 | 1,183 | 1,175 |
| Argentina | 717 | 684 | 692 | 715 | 521 |
| Mexico | 772 | 883 | 885 | 863 | 863 |
| India | 752 | 750[F] | 750[F] | 760[F] | 780[F] |
| China(Mainland) | 500[F] | 500[F] | 530[F] | 550[F] | 570[F] |
| Morocco | 444 | 439 | 471 | 609 | 510 |
| Israel | 425 | 435 | 604 | 668 | 685 |
| South Africa | 386 | 436 | 439 | 424* | 495* |
| Algeria | 349 | 379 | 389 | 443 | 395 |
| Pakistan | 220[F] | 293 | 370 | 415 | 350[F] |
| UAR | 201 | 341 | 384 | 384 | 399 |
| Total(including others) | 18,834 | 17,293 | 18,496 | 20,339 | 21,321 |

Source: Production Year Book, FAO, Rome, 1966

N.B. * Unofficial figures
F FAO Estimate

Annexure C-1(a)

## WORLD PRODUCTION OF LEMONS, LIMES AND OTHER CITRUS FRUITS

(Thousand Tonnes)

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| USA | 631 | 490 | 710 | 551 | 625 |
| Italy | 550 | 410 | 552 | 621 | 602 |
| India | 440 | 450[F] | 450[F] | 450[F] | 450[F] |
| Greece | 143 | 151 | 140 | 92 | 98 |
| Mexico | 123 | 148 | 171 | 166 | 168 |
| Spain | 121 | 80 | 106 | 134 | 94 |
| Argentina | 87 | 82 | 79 | 79 | 70 |
| Turkey | 63 | 67 | 71 | 37 | 78 |
| Japan | 50 | 50 | 52 | 70 | 71 |
| UAR | 40 | 58 | 50 | 88 | 83 |
| Lebanon | 40 | 57 | 55 | 75 | 80 |
| Total(including others) | 2,718 | 2,498 | 2,905 | 2,905 | 2,931 |

Source: Production Year Book, FAO, Rome, 1966

N.B. F FAO estimate

Annexure C-1(b)

## WORLD PRODUCTION OF GRAPEFRUIT

(Thousand Tonnes)

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| USA | 1,521 | 1,229 | 1,249 | 1,512 | 1,718 |
| Israel | 69 | 73 | 98 | 137 | 162 |
| Argentina | 40 | 47 | 50 | 60 | 72 |
| Jamaica | 31 | 32 | 32 | 30 | 34 |
| Tyinidad Tobago | 28 | 21 | 22* | 36* | 29* |
| South Africa | 26 | 35 | 44 | 55* | 56* |
| India | 20 | 20F | 20F | 20F | 20F |
| Philippines | 19 | 22 | 22 | 20 | 23 |
| Paraguay | 11 | 22 | 24 | 24 | 25 |
| Total (including others) | 1,891 | 1,637 | 1,714 | 2,051 | 2,300 |

Source: Production Year Book, FAO, Rome, 1966

N.B. * Unofficial Figures
F FAO estimate

Annexure C-2

## PRODUCTION AND UTILISATION OF ORANGES, 1961/62-1963-64 AVERAGE AND 1970 AND 1975 PROJECTIONS IN MEDITERRANEAN REGION

(Thousand Tonnes)

| | 1961/62-1963/64 average | | | | 1970 | | | | 1975 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production | Fresh domestic cons. 1/ | Processing 1/ | Exports 1/ | Production | Fresh domestic cons. | Processing | Exports | Production | Fresh domestic cons. | Processing | Exports |
| Greece | 207.6 | 113.9 | 52.8 | 40.0 | 420.0 | 164.9 | 130.0 | 125.1 | 560.0 | 181.9 | 180.0 | 198.1 |
| Turkey | 207.8 | 200.6 | -- | 7.2 | 367.5 | 322.0 | -- | 45.5 | 457.0 | 404.0 | -- | 53.0 |
| Malta 2/ | 0.4 | 0.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyprus | 51.0 | 3.2 | 3.0 | 44.8 | 96.0 | 4.2 | 4.3 | 87.5 | 122.0 | 5.0 | 5.0 | 112.0 |
| Syria 2/ | 3.9 | 3.9 | -- | -- | 7.8 | 7.8 | -- | -- | 14.0 | 14.0 | -- | -- |
| Lebanon 2/ | 135.6 | 58.8 | 4.0 | 72.8 | 190.0 | 63.0 | 15.0 | 112.0 | 230.0 | 67.0 | 25.0 | 138.0 |
| UAR | 258.3 | 250.0 | 3/ | 8.3 | 630.0 | 430.0 | 3/ | 200.0 | 720.0 | 540.0 | 3/ | 180.0 |
| Libya 2/ | 19.0 | 16.9 | -- | 2.1 | 22.0 | 22.0 | -- | -- | 23.0 | 23.0 | -- | -- |
| Tunisia | 55.1 | 30.5 | -- | 24.6 | 81.9 | 33.2 | 7.0 | 41.7 | 116.6 | 39.1 | 12.0 | 65.5 |
| Algeria | 291.8 | 96.0 | 16.0 | 179.8 | 252.0 | 116.0 | 36.0 | 100.0 | 300.0 | 135.0 | 45.0 | 120.0 |
| Morocco | 460.3 | 90.5 | 26.0 | 343.8 | 850.0 | 113.4 | 68.0 | 668.6 | 1,000.0 | 137.5 | 93.5 | 769.0 |
| TOTAL 11 COUNTRIES | 1,690.8 | 864.7 | 101.8 | 724.3 | 2,917.5 | 260.3 | 1,380.4 | 3,542.6 | 1,542.6 | 1,546.5 | 360.5 | 1,635.6 |

1/ Data presented on utilization refer only to the quantities production in the country and do not include imported goods.
2/ Oranges and tangerines.
3/ Included in fresh domestic consuption.

Source: Outlook for Horticultural Production in Mediterranean Region, FAO, Rome, 1966

Annexure C-3

## PRODUCTION AND UTILIZATION OF TANGERINES AND CLEMENTINES, 1961/62-1963/64 AVERAGE AND 1970 AND 1975 PROJECTIONS IN MEDITERRANEAN REGION

(Thousand Tonnes)

| | 1961/62-1963/64 average | | | | 1970 | | | | 1975 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production | Fresh domestic cons. 1/ | Processing 1/ | Exports 1/ | Production | Fresh domestic cons. | Processing | Exports | Production | Fresh domestic cons. | Processing | Exports |
| Greece | 18.8 | 15.0 | -- | 3.8 | 25.0 | 19.5 | -- | 5.5 | 26.0 | 21.0 | -- | 5.0 |
| Turkey | 34.5 | 33.9 | -- | 0.6 | 69.0 | 41.2 | -- | 27.8 | 91.0 | 51.8 | -- | 39.2 |
| Malta 2/ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyprus | 2.0 | 1.8 | -- | 0.2 | 3.0 | 2.4 | -- | 0.6 | 4.0 | 3.2 | -- | 0.8 |
| Syria 2/ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Lebanon | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| UAR | 51.0 | 50.0 | -- | 1.0 | 70.0 | 70.0 | -- | -- | 90.0 | 90.0 | -- | -- |
| Libya 2/ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Tunisia | 10.6 | 4.0 | -- | 6.6 | 21.5 | 8.8 | -- | 12.7 | 29.3 | 10.3 | -- | 19.0 |
| Algeria | 112.6 | 46.8 | -- | 65.8 | 99.5 | 34.5 | -- | 65.0 | 116.0 | 41.0 | -- | 75.0 |
| Morocco | 51.0 | 10.6 | -- | 40.4 | 80.0 | 12.1 | -- | 67.9 | 90.0 | 14.7 | -- | 75.3 |
| TOTAL 11 COUNTRIES | 280.5 | 162.1 | -- | 118.4 | 368.0 | 188.5 | -- | 179.5 | 446.3 | 232.0 | -- | 214.3 |

1/ See Annexure
2/ Included in oranges

Source: Outlook for Horticultural Production in Mediterranean Region, FAO, Rome, 1966

Annexure C-4

## WORLD EXPORTS OF ORANGES, TANGERINES AND CLEMENTINES DURING 1963-65

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Spain | 670.0 | 73,798 | 1336.7 | 137,120 | 1155.4 | 103,025 |
| Israel | 427.5 | 62,606 | 355.5 | 40,702 | 447.3 | 57,076 |
| Morocco | 350.5 | 50,181 | 466.9 | 60,434 | 410.0 | 61,383 |
| Algeria | 253.0 | 47,433 | 192.0 | 18,812 | 155.5 | 17,568 |
| South Africa | 235.4 | 30,209 | 280.9 | 37,903 | 270.8 | 36,120 |
| Italy | 180.4 | 30,194 | 193.3 | 26,727 | 224.8 | 32,131 |
| USA | 160.4 | 35,354 | 193.4 | 37,506 | 229.8 | 43,460 |
| Brazil | 144.2 | 6,195 | 97.1 | 3,717 | 159.8 | 7,434 |
| Lebanon | 75.3 | 3,128 | 70.8 | 3,893 | 80.3 | 4,106 |
| Greece | 47.0 | 4,770 | 48.8 | 5,043 | 77.7 | 7,778 |
| Mexico | 46.6 | 4,377 | 71.2 | 7,679 | 87.2 | 6,743 |
| China | 36.1 | 8,187 | 37.6 | 8,840 | 37.6 | 8,540 |
| Cyprus | 34.2 | 5,446 | 57.9 | 6,480 | 63.4 | 7,613 |
| France | 28.4 | 5,882 | 13.3 | 2,291 | 14.6 | 2,998 |
| Tunesia | 26.2 | 3,779 | 35.9 | 4,164 | 42.2 | 4,421 |
| Australia | 18.2 | 2,796 | 20.0 | 3,190 | 23.0 | 3,671 |
| Turkey | 12.2 | 1,156 | 7.3 | 889 | 25.2 | 2,969 |
| Japan | 12.1 | 4,055 | 14.9 | 4,224 | 16.3 | 4,478 |
| UK | 4.7 | 861 | 5.4 | 1,056 | 4.3 | 887 |
| Belgium-Luxemburg | 4.2 | 755 | 7.5 | 1,015 | 6.7 | 1,265 |
| Other Countries | 57.6 | 8,008 | 61.7 | 7,541 | 57.7 | 7,118 |
| Total | 2828.3 | 389,958 | 3572.2 | 419,996 | 3595.2 | 421,762 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure C-5

## WORLD EXPORTS OF LEMONS AND LIMES DURING 1963-65

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Italy | 234.263 | 48,576 | 310,258 | 39,190 | 334,622 | 44,980 |
| USA | 100,525 | 19,542 | 103,654 | 16,791 | 100,754 | 18,379 |
| Greece | 34,728 | 4,484 | 29,435 | 3,344 | 40,624 | 4,369 |
| Lebanon | 28,054 | 2,228 | 23,493 | 1,730 | 34,777 | 2,420 |
| Israel | 13,864 | 2,380 | 8,949 | 1,459 | 12,698 | 1,818 |
| Turkey | 11,851 | 1,397 | 6,390 | 788 | 5,497 | 727 |
| Spain | 10,459 | 1,191 | 49,677 | 5,121 | 43,880 | 4,305 |
| Cyprus | 7,418 | 1,192 | 8,182 | 1,052 | 9,197 | 1,268 |
| Chili | 6,228 | 942 | 2,568 | 373 | 3,454 | 552 |
| Tunisia | 4,048 | 453 | 7,250 | 811 | 3,614 | 454 |
| Algeria | 3,123 | 350 | 2,463 | 287 | - | - |
| Momocco | 3,083 | 353 | 3,413 | 388 | 2,571 | 294 |
| Mexico | 2,214 | 220 | 1,818 | 184 | 1,171 | 124 |
| Jordon | 1,147 | 116 | 745 | 67 | 1,993 | 172 |
| UK | 622 | 116 | 592 | 103 | - | - |
| France | 480 | 132 | 126 | 32 | 331 | 89 |
| Australia | 387 | 58 | 916 | 155 | 606 | 118 |
| Belgium-Luxemburg | 229 | 54 | 244 | 56 | 184 | 37 |
| Thailand | 6 | Neg | 29 | 2 | 684 | 7 |
| Other Countries | 11,929 | 1,991 | 5,892 | 2,412 | 18,553 | 3,103 |
| Total | 474,658 | 85,775 | 576,094 | 74,345 | 615,210 | 83,216 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure C-6

## WORLD EXPORTS OF OTHER CITRUS FRUIT DURING 1963-65

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| USA | 72,129 | 10,555 | 75,100 | 11,322 | 89,403 | 11,569 |
| Israel | 67,447 | 9,037 | 83,576 | 9,858 | 92,664 | 11,040 |
| South Africa | 20,917 | 3,252 | 31,300 | 4,128 | 30,827 | 4,357 |
| Cyprus | 11,741 | 1,270 | 18,022 | 1,537 | 25,241 | 2,578 |
| Jamaica | 9,144 | 1,551 | 4,820 | 863 | 6,166 | 1,101 |
| Trinidad Tobago | 6,238 | 559 | 4,433 | 392 | 3,452 | 302 |
| Morocco | 5,814 | 535 | 5,940 | 713 | 3,572 | 406 |
| Algeria | 5,050 | 590 | 3,390 | 510 | 2,437 | 315 |
| Surinam | 4,333 | 254 | 1,751 | 138 | 2,529 | 169 |
| Brazil | 3,967 | 169 | 3,072 | 119 | 3,055 | 119 |
| Paraguay | 3,246 | 133 | 2,489 | 103 | 4,142 | 203 |
| China | 2,700 | 454 | 3,600 | 550 | 6,400 | 1,200 |
| UK | 2,314 | 432 | 3,845 | 748 | - | - |
| Spain | 2,277 | 180 | 2,904 | 228 | 3,193 | 202 |
| France | 1,503 | 281 | 1,084 | 198 | 819 | 163 |
| Lebanon | 867 | 73 | 1,397 | 125 | 1,336 | 134 |
| Turkey | 735 | 75 | 995 | 106 | 1,417 | 148 |
| Netherlands | 254 | 48 | 820 | 144 | 1,139 | 191 |
| Italy | 195 | 40 | 466 | 93 | 846 | 199 |
| Czechoslovakia | - | - | 528 | 118 | 3,679 | 830 |
| Other Countries | 15,072 | 1,425 | 11,390 | 1,180 | 10,933 | 1,347 |
| Total | 235,943 | 30,913 | 260,922 | 33,173 | 293,250 | 36,573 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure D

# FEDERATION OF MALAYA

## No. 13 OF 1957

## THE PINEAPPLE INDUSTRY ORDINANCE, 1957*

## ARRANGEMENT OF SECTIONS

Section

1. Short title and commencement
2. Interpretation
3. Establishment of Board
4. Chairman
5. Procedure of Board
6. Liability of members
7. Establishment of the Fund and other functions of the Board
8. Imposition and collection of cess
9. Power of the Board to require information
10. Administrative staff
11. Registration of canners, canneries, exporters, can-suppliers and marketing societies
12. Refusal to register
13. Assignment and transfer of certificates
14. Offences
15. Powers of search
16. Marking of cans
17. Offences and liability for acts of agents or servants
18. Jurisdiction
19. Recognition of association
20. Formation of an inspectorate
21. Powers of inspectors
22. Formation of an executive committee.

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*Incorporating ammendments brought out in the following Acts.

(a) No. 39 of 1958, The Pineapple Industry (Amendment) Ordinance 1958
(b) No. 4 of 1959, The Pineapple Industry (Amendment) Act, 1959
(c) No. 1 of 1961, The Pineapple Industry (Amendment) Act, 1961
(d) No. 5 of 1966, The Pineapple Industry (Amendment) Act, 1966

Pineapple Industry (Amendment) Act, 1964 is appended in the end.

23. Cancellation of registration
24. Tribunal of Appeal
25. Powers to make regulations
26. Repeal

An Ordinance to amend and re-enact the law relating to the regulation and improvement of the pineapple industry.

IT IS HEREBY ENACTED by the High Commissioner of the Federation of Malaya and Their Highnesses the Rulers of the Malay States, with the advice and consent of the Legislative Council, as follows.

**Short title and commencement**

1. (1) This Ordinance may be cited as the Pineapple Industry Ordinance, 1957, and shall come into operation on such data as the High Commissioner may by notification in the Gazette appoint.

(2) The High Commissioner may appoint different dates for the coming into operation of different provisions of this Ordinance.

**Interpretation**

2. In this Ordinance, unless the context otherwise requires -

"Board" means the Malayan Pineapple Industry Board established under the provisions of section 3;

"can" includes any hermetically sealed bottle or container made of glass, metal, plastic, paper or any other material;

"canned pineapple" means pineapple whole, cut, crushed, or in pulp or juice form, which has been preheated, cooked, preserved, dehydrated, quick-frozen or otherwise processed either before or after being placed in a can;

"canner" means a person who prepares pineapple or labels canned pineapple;

"cannery" means any structure or building used wholly or in part to prepare pineapple or to label canned pineapple;

"cannery" means any structure or building used wholly or in part to prepare pineapple or to label canned pineapple;

"can-supplier" means a manufacturer or importer of cans used or intended to be used for the canning of pineapple;

"exporter" means any person who exports canned pineapple from the Colony or the Federation;

"Fund" means the Pineapple Industry Fund established under the provisions of section 7;

"Governor" means the Governor of the Colony;

"grower" means any person owning or using land for planting pineapple intended primarily for sale to canneries who is not at the same time the owner of any cannery in Malaya and includes his duly authorised agent;

"inspector" means an inspector appointed under the provisions of section 20 and includes the Chief Inspector;

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"marketing society" means any co-operative pineapple marketing society registered as such under the provisions of the Co-operative Societies Ordinance, 1948, or the Co-operative Societies Ordinance of the Colony;

"Minister" means the Minister charged with responsibility for commerce and industry in the Federation;

"pineapple" means any fruit of the plant ananas;

"prepare pineapple" means to render pineapple into canned pineapple;

"registered canner", "registered cannery", "registered can-supplier", "registered marketing soceity", "registered exporter", "registered grower" means any pineapple canner, cannery, can-supplier, marketing society, exporter or grower, as the case may be, registered under the provisions of this Ordinance;

"representative association" means a representative association specified under the provisions of section 19.

Establishment of Board

3. (1) For the purposes of this Ordinance there is hereby established a Board which shall be a body corporate by the name of "The Malayan Pineapple Industry Board" and which shall have perpetual succession and a common seal, and may sue and be sued in its corporate name. The Board shall have an office in the Federation.

(2) The Board shall consist of -

(a) a Chairman, to be appointed jointly by the Yang-di-Pertuan Agong and the Yang-di-Pertuan Negara of the State of Singapore

(b) two members to represent the Government of the Federation to be appointed by the Minister;

(c) one member to represent, and be appointed by, the Government of the State of Singapor

(d) one member to represent registered canners to be appointed by the representative association of the canning branch of the pineapple industry;

(e) one member to represent small growers to be appointed by the Minister; and

(f) the State Agricultural Officer, Johore.

(3) The appointors specified in paragraphs (b) to (e) inclusive of sub-section (2) of this section may appoint and the person specified in paragraph (f) of that sub-section, may nominate one or more persons to be alternate members of the Board one of whom may attend meetings of the Board when the substantive member is temporarily unable to attend and when so attending such alternate member shall be deemed for all purposes to be a member of the Board.

(4) If the representative association specified in paragraph (d) of sub-section (2) of this section fails to make any appointment to the Board within two months of being requested so to do, such appointment may be made jointly by the High Commissioner and the Governor.

(5) The members of the Board appointed under the provisions of this (other than the Chairman) shall hold office for two years from the date of thier appointment and shall be eligible for re-appointment. The appointment of the respective alternate members under the provisions of sub-section (3) shall be effective for the same period as the appointment of the respective substantive members.

(6) Any member of the Board who without reasonable cause absents himself from two consecutive ordinary or special meetings of the Board and any member who has been found or declared to be of unsound mind or has become bankrupt or made an arrangements with his creditors or has been sentenced to imprisonment shall be deemed to have vacated his office and his appointors shall be informed accordingly.

(7) If any vacancy occurs by death, resignation, absence, insanity, bankruptcy, imprisonment or otherwise the appointor may appoint a person to fill any such vacancy and any person so appointed shall hold office so long only as the person in whose place he is appointed would have held office.

(8) The appointment of every member and alternate member of the Board shall be published in the Gazette.

Chairman

4. (1) The Chairman of the Board shall be employed upon such conditions and terms of service, and shall receive such salary, travelling allowances and subsistence allowances as may be prescribed by regulations made under section 25, and such salary and allowances shall be paid out of the Fund.

(2) During the absence of the Chairman from any cause the members of the Board shall elect an acting chairman who, during the absence of the Chairman, shall have and exercise all the powers of the Chairman.

Procedure of Board

5. (1) At any meeting of the Board four members present shall form a quorum for the transaction of business.

(2) The powers of the Board shall not be affected by any vacancy in the membership thereof.

(3) A decision of the majority of the members of the Board present and voting at a meeting of the Board shall be deemed to be a decision of the Board.

(4) The Chairman shall have a vote as a member and in the event of an equality of votes he shall have and exercise a casting vote.

(5) At the request of any member of the vote on any matter before the Board shall be taken by ballot.

Liability of members

6. No member of the Board shall incur any personal liability for any loss or damage caused by any act or ommission in the administration of the affairs of the Board unless such loss or damage is occasioned by an intentionally wrongful act or omission on his part.

Establishment of the Fund and other functions of the Board

7. (1) The Board shall establish and administer a fund to be called "the Pineapple Industry Fund" and may acquire and hold property, movable or immovable, and may transfer or otherwise deal, with the same, and may enter into contracts and do all the things necessary for or incidental to the purposes of this Ordinance.

(2) The proceeds of any such cess as is referred to in section 8 and all monies belonging to the Board shall be paid into the Fund. The Fund may be applied for any purpose within the objects of this Ordinance in such manner as shall be determined by the Board.

(3) The functions of the Board shall include -

(a) the financing of agronomic and processing research programmes for the industry;

(b) the negotiation of agreements on prices and grades of pineapples for sale to canneries;

(c) the regulation of the production, grading and marketing of pineapple for sale to canneries and of canned pineapple;

(d) administration of quality control and health regulations;

(e) administration of a cess fund and making recommendations regarding the rate of cess;

(f) collection of statistics and maintenance of statistical records of the industry;

(g) the granting of financial assistance whether by way of subsidy or otherwise, to the industry as a whole or any section of it;

(h) any other matters affecting the industry

(4) The Board shall keep a full and correct account of all monies received and spent by it and at the end of each calendar year submit a report of its operations accompanied by a statement of its revenue and expenditure to the Minister.

(5) The accounts of the Board shall be subject to audit by an auditor approved jointly by the High Commissioner and the Governor.

(6) The common seal of the Board may by resolution of the Board be affixed to any instrument in the presence of the Chairman and two other members of the Board, who shall all sign their names to sub such instrument.

(7) Two ordinary meetings of the Board shall be held each year; in March and September. All other meetings shall be special meetings and may be called at any time by the Chairman or acting Chairman and shall be called at the request of any member.

position
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llection
cess

8. (1) The Minister after consultation with the Board may for the purposes of this Ordinance make orders for the imposition, collection, variation or cancellation of a cess or cesses on the exportation of canned pineapple.

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(2) Any order imposing a cess made under the provisions of the Pineapple Industry Ordinance, 1951, and in force on the date of the coming into operation of this section shall be deemed to be an order made under the preceding sub-section.

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nformation

9. The Board may require any person to submit such information as may, in its opinion, be necessary before any distribution is made from the Fund under the provisions of this Ordinance; and any person making application for assistance from the Fund who wilfully or without reasonable excuse fails to give such information to the Board or who gives any information which he knows or has reason to believe to be false in any material particular shall be guilty of an offence and shall be liable on conviction to imprisonment for a term not exceeding two years or to a fine not exceeding five thousand dollars or to both such fine and imprisonment.

dministra-
ive Staff

10. (1) The Board may employ such staff as it considers necessary.

(2) The Board may lay down such conditions and terms of service for its employees as it deems fit.

Registration of canners, canneries, exporters, can-suppliers and marketing societies

11. The Board shall -

(a) cause to be kept a register of growers, canners, canneries, exporters, can-suppliers and marketing societies in such manner as the Board may prescribe;

(b) furnish each canner, exporter, can-supplier or marketing society, as the case may be, on due registration, a certificate of registration in the form prescribed;

(c) issue a separate certificate of registration in respect of each cannery in which a registered canner is permitted to prepare pineapple.

Refusal to register

12. The Board may refuse to effect any registration -

(a) if it is of the opinion that the applicant will be unable to comply, with or to fulfil any of the standards or conditions prescribed;

(b) if the application is made by or on behalf of a person whose registration has been cancelled under the provisions of section 23.

Assignment and transfer of certificates

13. Certificates of registration furnished under the provisions of section 11 shall not be assigned or transferred.

Offences

14. (1) No person shall prepare pineapple or label any canned pineapple except in a registered cannery.

(2) No person other than a registered can-supplier shall make, re-form or import any cans for the canning of pineapple.

(3) No person other than a registered exporter shall export canned pineapple.

(4) Without the written approval of the Board, no registered canner shall accept pineapples from any person other than a registered grower.

(5) Any person who acts in contravention of the provisions of this section shall be guilty of an offence and shall be liable on conviction to a fine not exceeding ten thousand dollars.

Powers of search

15. If a President Sessions Court or Magistrate is satisfied by information on oath or affirmation that there is reasonable cause to suspect that any place within his jurisdiction, whether a building or not, other than at a registered cannery, is being used to prepare pineapple or label canned pineapple he may grant a search warrant authorising any police officer at any time or times within one month from the date thereof to enter, with such assistance as may be required, and if need be by force, such place and every part thereof and examine the same and search for therein and seize and remove therefrom and take before a President Seassions Court or Magistrate any plant, machinery or implements used or intended to be used or which there is reasonable ground to suppose is in the place for the purpose of unlawfully preparing pineapple or labelling canned pineapple.

Marking of cans

16. (1) Every registered canner shall register with the Board such mark or marks as may be approved by the Board for his use as the distinguishing mark or marks for the products of each or all of the registered canneries in respect of which he has been issued with a certificate.

(2) No such mark shall be registered for use by more than one registered canner.

(3) The Board may cancel the registration of the mark or marks of a registered canner if the certificate of registration of such registered canner has been cancelled in accordance with the provisions of section 23.

(4) After registration of a mark or marks under sub-section (1) of this section the registered canner shall cause such mark or marks to be embossed or indelibly stamped in such manner as may be prescribed on each can containing canned pineapple prepared in each registered cannery for which the mark or marks were approved and also on the package in which such cans are contained.

(5) No person shall export any can containing canned pineapple or any package containing such cans unless -

(a) it has been marked in accordance with the provisions of sub-section (4) of this section; and

(b) a certificate in such form as the Board may prescribe that it has been so marked has been lodged with the appropriate customs authority.

(6) Any person who acts in contravention of sub-section (5) of this section shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two thousand dollars.

Offences and liability for acts of agents or servants

17. (1) Where any offence against this Ordinance is committed by a body corporate and is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of, any director , manager, secretary or other officer of the body corporate, such director, manager, secretary or other officer of the body corporate, such director, manager, secretary or other officer, as well as the body corporate, shall be deemed to be guilty of that offence, and shall be liable to be punished in accordance with the provisions of this Ordinance.

(2) Whenever any agent or servant in the course of his employment does or omits to do an act, the doing of which or omission to do which by his principal or employer would be an offence against this Ordinance, such agent or servant shall be deemed to be guilty of that offence, and his principal or employer and any person who at the time of the act or omission was in charge of the business in respect of which the act or omission occurred shall also be guilty of that offence unless such principal or employer or other person, as the case may be, proves to the satisfaction of the court that he took all reasonable means and precautions to prevent such act or omission.

Jurisdiction

18. A Sessions Court and the Court of a First Class Magistrate shall have jurisdiction to hear and determine all prosecutions for offences against sections 9, 14, 16, 19 and 21 and a Sessions Court shall notwithstanding anything to the contrary in any written law, have jurisdiction to impose the full penalty or punishment provided by or under this Ordinance

Recognition of association

19. (1) The Board may by notification in the Gazette specify one association each to represent the canning, can-supplying, fruit marketing and exporting branchesof the pineapple industry respectively and each such association shall thereupon and so long as the notification which refers to it remains in force be deemed to be a representative association for the purposes of this Ordinance and of any

Provided that no association shall be specified as a representative association as aforesaid or, having been so specified, continue to be a representative association unless -

(a) its rules have been approved by the Board;

(b) its rules -

(i) contain nothing that can be construed as preventing the admission as a member of any person whom the association is intended to represent;

(ii) contain nothing prejudicial to the general interests of the industry;

(iii) provide that any person who applies for admission as a member and undertakes to comply with the rules of such association shall be admitted as a member thereof.

(2) Any association specified by notification in the Gazette as being representative of the canning branch of the pineapple industry under the Pineapple Industry Ordinance, 1951, shall be deemed to be a representative association of the canning branch of the pineapple industry under the provisions of this Ordinance.

No. 36 of 1951

(3) Any association deemed to be a representative association under the provisions of this section which subsequently makes any alteration in the articles, in the rules, or in the conditions affecting membership of the association, shall within fourteen days lodge with the Board a written copy of the alteration; and failure to comply with the provisions of this sub-section shall be an offence against this Ordinance punishable on conviction with a fine not exceeding five hundred dollars.

Formation of an inspectorate

20. The Board may appoint a Chief Inspector and such other inspectors as may be necessary for carrying into effect the provisions of this Ordinance who shall have and exercise such powers and duties as are provided under section 21. All inspectors shall be deemed to be public servants within the meaning of the Penal Code.

F.M.S. Cap. 45

Powers of inspectors

21. (1) Any inspector, who may be accompanied by any person or persons he deems necessary, may enter any registered cannery or any place where has has reason to believe pine-apple is being planted and may search thereat and seize, sample or photograph any article in such premises or place as may be reasonably necessary as evidence in connection with any contravention of the provisions of this Ordinance or any regulations made thereunder.

(2) Any inspector may require any registered canner to open any package and may remove from any registered cannery any can containing, purporting or suspected to contain canned pineapple and shall not be liable for any expenses incurred in the opening or re-closing of cases or packages for examination or for any injury, loss, damage or delay caused thereby.

(3) The inspector shall acknowledge in writing receip of all samples taken by him for examination and the Board shall, if requested to do so, pay for such samples at the market price as notified by the representative association of the canning branch of the pineapple industry:

Provided that this sub-section shall not apply to such routine samples as an inspector may be entitled to take without payment under regulations made under the provisions of this Ordinance.

(4) Every registered canner and registered exporter shall, on request by the Chief Inspector, produce for inspection at such time and place as he may specify such books and other documents as are required to be maintained by him for the purposes of this Ordinance and the regulations made thereunder.

(5) Any inspector entering any premises or place in exercise of the powers conferred by this Ordinance shall produce for the inspection of the person in charge of such premises or place, or, in his absence, to such person's agent, his authority for such entry. Any such authority shall have affixed thereto a photograph of the inspector to whom it is issued.

(6) Any person who wilfully impedes or obstructs any inspector in the exercise of the powers conferred on him by this section shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two thousand dollars.

Appointment of Committees

22. The Board may appoint such committees for the carrying out of such of the objects of this ordinance as it may deem necessary and may delegate any of its powers to any such committee.

ancellation f registration

23. (1) If it appears to the Board that any person duly registered under the provisions of this Ordinance has contravened or failed to comply with any provision of this Ordinance or any regulation made thereunder, the Board may call upon such person in the manner prescribed, to show cause why the registration and the certificate or certificates issue pursuant thereto should not be cancelled.

(2) Any person called upon to show cause under the provisions of sub-section (1) of this section -

(a) shall be supplied by the Board with the particulars, in writing, of the contravention or non-compliance complained of; and

(b) may, if he so desires, be present or represented by any person authorised by him in writing at the hearing by the Board.

(3) If after such hearing the Board is of the opinion that the person called upon to show cause has contravened or failed to comply with any of the provisions of this Ordinance or the regulations made thereunder, the Board may -

(a) cancel his registration and any certificate or certificates issued pursuant thereto, and prohibit his re-registration for such period as the Board may determine;

(b) impose a fine not exceeding ten thousand dollars in the case of a registered canner, registered can-supplier or registered exporter which fine may be recovered by the Board in the manner provided for the recovery of a civil debt and shall be paid into the Fund;

(c) order such person to pay to the Board a sum not exceeding one thousand dollars to cover the costs incurred by the Board as a result of the contravention or non-compliance with any of the provisions of this Ordinance or of any regulations made thereunder which may be recovered by the Board in the manner provided for the recovery of a civil debt and shall be paid into the Fund.

(4) Subject to the provisions of this Ordinance and of any regulations made thereunder the Board may regulate its own procedure at any such hearing and shall not be bound by any law or rule of practice relating to the admissibility of evidence

(5) The Board shall keep in writing a record of its proceedings and of all evidence received by it and the decisions of the executive committee shall be recorded in writing.

Tribunal of Appeal

24. (1) There shall be established a Tribunal of Appeal which shall consist of a chairman who shall be a person qualified to be appointed a judge of the Supreme Court of the Federation or of the Colony under the law for the time being in force in the Federation or in the Colony, as the case may be, and two other persons who shall not be members of the Board, all of whom shall be appointed jointl by the High Commissioner and the Governor.

(2) The Tribunal of Appeal may make rules governing the fees payable and the procedure to be followed on appeal Any such fees shall be payable to the Board.

(3) Any person aggrieved by a decision of the Board given under the provisions of section 12 or section 19 or sub-section (3) of section 23 may appeal to the Tribunal of Appeal established under sub-section (1) of this section.

(4) Notice in writing of such appeal together with the grounds thereof shall be given to the Tribunal of Appeal within fourteen days of the receipt by the person aggreived of the decision of the Board. Every notice given to the Tribunal of Appeal under the provisions of this sub-section shall be sent to such address in the Federation as may be prescribed by the Tribunal of Appeal.

(5) Execution of any decision of the Board given under the provisions of sub-section (3) of section 23 shall be stayed pending the expiration of the period within which notice of appeal may be given or, if a notice of appeal is given, the decision on such appeal, as the case may be.

(6) The appellant may, if he so desires, be present at the hearing of his appeal and may be heard, either in person or by a person authorised by him in that behalf.

(7) Upon the hearing of an appeal from a decision under sub-section (3) of section 23, the Tribunal of Appeal may allow the appeal or confirm or vary the decision of the Board within the limits specified in that sub-section, and upon hearing an appeal from a decision of the Board, the Tribunal of Appeal may confirm the decision of the Board or make such order as to registeration or the specifying of an

association as the case may require. Any decision of the Tribunal of Appeal shall be final and conclusive and shall be enforceable in the same manner as a decision of the Board. Every such hearing shall be held in the Federation.

(8) The Tribunal of Appeal may regulate its own procedure at the hearing of any such appeal and shall not be bound by any law or rule of practice relating to the admissibility of evidence.

(9) The Tribunal of Appeal may at its descretion from time to time extend the period fixed for the giving of a notice of appeal.

owers to ake egulations

25. (1) The Board may, with the approval of the High Commissioner in Council, make regulations for carrying out the purposes of this Ordinance.

(2) In particular and without prejudice to the generality of the foregoing, such regulations may -

(a) prescribe the form and time of application, particulars to be supplied for registeration as a canner, cannery exporter, can-supplier or marketing society and the period for which such registration shall apply;

(b) require all canners, exporters, can-suppliers and marketing societies applying for registration to be members of such representative association as the Board may deem suitable;

(c) prescribe minimum requirements for the siting lay-out, consturction, plant, machinery and hygiene of a registered cannery and the water supply thereto;

(d) prescribe the minimum extent and methods of pineapple cultivation by a registered canner;

(e) prescribe the medical personnel to be employe in registered canneries and the equipment and stores to be supplied;

(f) prescribe the accommodation, washing, bathing toilet, eating, recreational and any other facilities to be supplied by registered canners for the benefit of their workers;

(g) prohibit the export of any grade, quality or type of canned pineapple either absolutely or to any particular destination and prescrib the method of disposal of any canned pine-

apple which it may decide is unsuitable for export or for sale within the Federation;

(h) prescribe the method and ratios to production or export by which free samples may be taken for the purpose of checking compliance with the provisions of this Ordinance or the regulations made thereunder;

(i) prescribe the manner and the frequency with which workers, in any registered cannery shall be medically examined and the form in which such examination shall be certified and prohibit the employment of any person on the premises of any registered cannery who has not been medically certified as suitable for such employment.

(j) prescribe the use of certificates of origin for canned pineapple;

(k) prescribe the type and design of containers in which empty cans, can-ends, pineapple and filled cans of pineapple may be packed and transported to or from registered canneries and registered exporters' godowns;

(l) require the addition of such information and certificates as the Board thinks fit to the declaration made by an exporter in compliance with the provisions of the Customs Ordinance, 1952;

No. 42 of 1952

(m) require registered exporters to keep books of account in such form as to the Board may appear desirable and to keep copies of documents dealing with transactions in canned pineapple;

(n) prescribe standards for the production, grading, and the manner of describing, marking and labelling of canned pineapple and the methods of inspection and certification or registration thereof;

(o) prescribe the standard dimensions, materials and methods of construction of cans to be used for the canning of pineapple and prohibit the purchase of such cans from anyone but a registered can-supplier;

(p) prescribe the destination to which canned pineapple may be exported under any particular label;

(q) prescribe the information with regard to production, sales and exports which shall be given and the methods which shall be used to indicate such information by any registered canner, registered exporter, registered can-supplier or registered marketing society and the form of return to be made by members of registered marketing societies;

(r) prescribe methods for the fixing of prices to be paid to growers by registered canners and the fixing of quotas of growers' pineapple to be purchased by registered canners and may compel registered canners to purchase such quotas in times of overproduction;

(s) prescribe minimum standards for pineapple which may be received by any registered cannery or which may be used for any particular type or grade of canned pineapple;

(t) prescribe the conditions and terms of service of, and the salary, travelling allowances and subsistence allowances payable to, the Chairman of the Board, and regulate the procedure of the Board and committees appointed under the provisions of this Ordinance;

(u) prescribe, prohibit or require anything which the Board deems necessary in order to carry out the objects of this Ordinance.

(3) All regulations made under this Ordinance shall be laid before the Legislative Council at the first meeting after they are made; and, if a resolution is passed within the next subsequent three months after any such regulation is so laid annuling the regulation or any part thereof as from a specified date, such regulation or such part thereof, as the case may be, shall there upon be avoid as from such date, but without prejudice to the validity of anything previously done thereunder or to the making of a new regulation.

Repeal. No. 36 of 1951

26. The Pineapple Industry Ordinance, 1951, is hereby repealed:

Provided that the Pineapple Joint Industrial Council established under the provisions of the Ordinance hereby repealed shall notwithstanding such repeal continue in being for so long only as is necessary for the said Council to discharge its liabilities (if any) and transfer its functions to the Board.

MALAYSIA

ACT OF PARLIAMENT

No. 29 OF 1964

# PINEAPPLE INDUSTRY (AMENDMENT) ACT, 1964

An Act to make further provision for regulating the marketing of canned pineapple, to provide for registration of growers of pineapple and to amend the Pineapple Industry Ordinance, 1957.

(30th July, 1964)

BE IT ENACTED by the Duli Yang Maha Mulia Seri Paduka Baginda Yang di-Pertuan Agong with the advice and consent of the Dewan Negara and Dewan Ra'ayat in Parliament assembled, and by the authority of the same, as follows:

Short title and application

1. (1) This Act may be cited as the Pineapple Industry (Amendment) Act, 1964.

(2) This Act shall not apply to the States of Singapore, Sabah and Sarawak.

Interpretation
13 of 1957

2. In this Act "the principal Ordinance" means the Pineapple Industry Ordinance, 1957, and this Act shall be construed as one with that Ordinance.

Establishment and functions of marketing corporation

3. (1) Regulations made under section 25 of the principal Ordinance or, if provision corresponding to this section is made by any law of the State of Singapore, regulations made jointly under that section and under any corresponding enactment in force in that State may provide for establishing (as a body corporate with perpetual succession, a common seal and the capacity to sue and be sued) a corporation to be charged by the regulations with the promotion, management and control of the marketing of canned pineapple, and having for that purpose such powers and duties as may be provided by the regulations.

(2) The regulations shall provide for the corporation so established (hereafter in this Act referred to as "the marketing corporation") to act as the agent of registered canners in the sale of canned pineapple, and for requiring registered canners, as a condition of being or remaining registered under the principal Ordinance, to sell all canned pineapple through the marketing corporation, and the regulations shall make all registered canners members of the marketing corporation and may require members to make payments to it in respect of their membership.

(3) Subject to sub-section (2), the regulations may make such provision as the Board thinks fit as to the constituion of the marketing corporation and the management of its affairs, and generally for carrying out the purposes of this Act.

nding-up d disso- tion of e cor- ration

4. The marketing corporation established by the regulations aforesaid shall not be wound up except by an order made by the Minister to revoke the said regulations; and such order shall provide for the winding-up of the affairs of the marketing corporation and for its dissolution.

position d collec- on of vy

5. The Minister after consultation with the marketing corporation may for the purposes of this Act make orders for the imposition, collection, variation or cancellation of a levy on canned pineapple sold to the marketing corporation for export; and the proceeds of any such levy shall be paid to the marketing corporation.

gistra- on of owers

6. (1) Regulations made under section 25 of the principal Ordinance may provide for the establishment and maintenance by the Board of a register of growers or of such growers as the regulations may require to be registered therein; and in paragraph (a) of sub-section (2) of that section (which enables regulations to prescribe the procedure for registration and other incidental matters) after the word "a" there shall be inserted the word "grower".

(2) In section 23 of the principal Ordinance (which provides for disciplinary proceedings against persons registered under the Ordinance) in sub-section (1) after the words "registered under the provisions of this Ordinance" there shall be inserted the words "otherwise than as a grower".

e Board y make ans to e cor- ration

7. (1) The Board may upon terms and conditions approved by the Minister of Finance make to the corporation such loans as shall not in the aggregate exceed one and a half million dollars.

(2) Any monies borrowed by the Board for the purpose of providing the corporation with the loans referred to in sub-section (1) shall be guaranteed by the Federal Government and shall if the repayment of such monies cannot be made by the Board out of the Fund established under section 7 of the principal Ordinance, be charged on and payable out of the Consolidated Fund.

(3) Any payment out of the Consolidated Fund shall as soon as practicable be repaid by the Board to the Consolidated

Fund and until repaid shall be a debt due to the Government and a first charge on the assets (including cess) of the Board.

8. There shall be inserted immediately after the word "Ordinance" in section 20 of the principal Ordinance, the words "or the regulations made thereunder".

9. Section 25 of the principal Ordinance is hereby amended by substituting for the words "Yang di-Pertuan Agong" in sub-section (i) the word "Minister".

(Received the Royal Assent
on the 29th day of
July. 1964)

Annexure E-1

## WORLD PRODUCTION OF GRAPES DURING 1961-65

(Thousand Tonnes)

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| **Italy** | 8,467 | 10,966 | 8,698 | 10,358 | 10,675 |
| Wine Varieties | 7,641 | 10,063 | 7,868 | 9,496 | 9,720 |
| Table Varieties | 826 | 903 | 830 | 862 | 955 |
| **France** | 7,491 | 11,505 | 8,775 | 9,588 | 10,521 |
| Wine Varieties | 7,249 | 11,193 | 8,588 | 9,321 | 10,215 |
| Table Varieties | 242 | 312 | 187 | 267 | 306 |
| **Spain** | 3,298 | 3,870 | 4,108 | 5,513 | 4,317 |
| Wine Varieties | 3,032 | 3,596 | 3,815 | 5,164 | 3,999 |
| Table Varieties | 266 | 274 | 293 | 349 | 318 |
| **Turkey** | 3,189 | 3,382 | 2,693 | 2,790 | 3,350 |
| Wine Varieties | 47[F] | 54[F] | 24[F] | 61[F] | 74 |
| Table Varieties | 3,142 | 3,328 | 1,669 | 2,729 | 3,276 |
| **USA** | 2,805 | 2,938 | 3,441 | 3,156 | 3,948 |
| Wine Varieties | 1,490 | 1,644 | 1,895 | 1,661 | 2,150 |
| Table Varieties | 1,415 | 1,294 | 1,546 | 1,495 | 1,798 |
| **USSR** | 2,235 | 2,972 | 2,572 | 2,629 | 3,723 |
| Wine Varieties | 1,100[F] | 1,310[F] | 1,540[F] | 1,660[F] | 1,740 |
| Table Varieties | 1,135 | 1,662 | 1,032 | 969 | 1,983 |
| **Argentina** | 2,044 | 2,247 | 2,376 | 2,370 | 2,290 |
| Wine Varieties | 1,811 | 1,992 | 2,077 | 2,092 | 2,010 |
| Table Varieties | 233 | 255 | 299 | 278 | 280 |
| **Algeria** | 1,759 | 1,584 | 1,614 | 1,249 | 2,091 |
| Wine Varieties | 1,731 | 1,559 | 1,597 | 1,331 | 2,066 |
| Table Varieties | 28 | 25 | 17 | 18 | 25 |
| **Greece** | 1,114 | 1,314 | 1,012 | 1,229 | 1,348 |
| Wine Varieties | 455 | 474 | 400 | 500 | 520 |
| Table Varieties | 659 | 840 | 612 | 729 | 828 |
| **Portugal** | 1,063 | 2,091 | 1,787 | 1,874 | 2,019 |
| Wine Varieties | 989 | 2,036 | 1,731 | 1,864 | 1,968 |
| Table Varieties | 74 | 55 | 56 | 10 | 51 |

| | | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|---|
| Yugoslavia | | 952 | 1,130 | 1,220 | 1,250 | 1,240 |
| | Wine Varieties | 725 | 875 | 1,003 | 994 | 876 |
| | Table Varieties | 227 | 255 | 217 | 256 | 364 |
| Romania | | 752 | 1,032 | 937 | 898 | 921 |
| | Wine Varieties | 540[F] | 740[F] | 670[F] | 650[F] | 650[F] |
| | Table Varieties | 212 | 292 | 267 | 248 | 271 |
| Hungary | | 591 | 551 | 736 | 927 | 427 |
| | Wine Varieties | 529 | 477 | 655 | 832 | 377 |
| | Table Varieties | 62 | 74 | 81 | 35 | 50 |
| Bulgaria | | 579 | 1,053 | 1,158 | 907 | 1,334 |
| | Wine Varieties | 466 | 747 | 770 | 604 | 790 |
| | Table Varieties | 113 | 306 | 388 | 303 | 544 |
| Australia | | 535 | 638 | 479 | 665 | 701 |
| | Wine Varieties | 185 | 231 | 171 | 218 | 228 |
| | Table Varieties | 350 | 407 | 308 | 447 | 473 |
| South Africa | | 520 | 662 | 682 | 682[F] | 800 |
| | Wine Varieties | 451 | 509 | 534 | 534[F] | 700 |
| | Table Varieties | 69 | 153 | 148 | 148 | 100 |
| West Germany | | 458 | 503 | 772 | 920 | 645 |
| | Wine Varieties | 458 | 503 | 772 | 920 | 645 |
| | Table Varieties | - | - | - | - | - |
| Morocco | | 373 | 329 | 417 | 420 | 488 |
| | Wine Varieties | 273 | 223 | 311 | 320 | 388 |
| | Table Varieties | 100 | 106 | 106 | 100 | 100 |
| Other Countries | | 3,488 | 3,543 | 3,554 | 3,739 | 3,473 |
| | Wine Varieties | 1,756 | 1,780 | 1,833 | 1,902 | 1,659 |
| | Table Varieties | 1,732 | 1,763 | 1,721 | 1,837 | 1,814 |
| Total | | 41,713 | 52,310 | 47,001 | 51,264 | 5,4331 |
| | Wine Varieties | 30,928 | 40,033 | 36,247 | 40,124 | 40,775 |
| | Table Varieties | 10,785 | 12,277 | 10,754 | 11,140 | 13,536 |

Source: Production Year Book, FAO, 1966

F FAO estimates

Annexure E-2

## WORLD EXPORTS OF TABLE GRAPES DURING 1963-65

Quantity: Tonnes
Value: Thousand Dollars

| | Quantity | | | Value | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| **Europe** | **564,145** | **557,459** | **741,154** | **83,203** | **77,079** | **104,572** |
| Bulgaria | 202,401 | 107,501 | 259,501 | 30,813 | 11,546 | 30,569 |
| Italy | 162,099 | 213,765 | 215,909 | 24,787 | 31,810 | 32,817 |
| Spain | 71,387 | 101,997 | 102,881 | 9,698 | 13,750 | 15,785 |
| Rumania | 52,000 | 40,700 | 60,300 | 4,896 | 4,371 | 7,100 |
| Hungary | 23,661 | 27,294 | 12,974 | 2,305 | 2,941 | 1,507 |
| France | 21,487 | 28,789 | 41,183 | 3,753 | 5,194 | 7,449 |
| Greece | 12,632 | 14,428 | 27,219 | 1,821 | 1,877 | 3,746 |
| Yugoslavia | 12,283 | 16,684 | 15,392 | 1,220 | 1,787 | 1,840 |
| Belgium-Luxemburg | 2,359 | 2,629 | 2,310 | 1,913 | 1,904 | 1,742 |
| Holland | 1,614 | 1,170 | 1,363 | 1,196 | 963 | 1,150 |
| UK | 826 | 715 | 917 | 393 | 387 | 508 |
| Sweden | 446 | 675 | 294 | 167 | 254 | 114 |
| Porgugal | 442 | 576 | 527 | 117 | 167 | 151 |
| Federal Republic of Germany | 278 | 324 | 233 | 49 | 76 | 43 |
| Denmark | 158 | 180 | 117 | 49 | 54 | 42 |
| Finland | 41 | - | - | 15 | - | - |
| Norway | 19 | 20 | 9 | 8 | 12 | 4 |
| Switzerland | 12 | 12 | 25 | 3 | 4 | 5 |
| **North and Central America** | **97,994** | **103,094** | **122,138** | **19,651** | **21,046** | **23,910** |
| USA | 89,561 | 88,618 | 112,282 | 18,265 | 19,166 | 22,712 |
| Canada | 7,253 | 13,000 | 8,544 | 946 | 1,371 | 715 |
| USA (Raisins) | 741 | 131 | 933 | 350 | 439 | 382 |
| Mexico | 429 | 340 | 317 | 84 | 66 | 61 |
| Honduras | 8 | 4 | 7 | 5 | 3 | 4 |
| Trinidad | 2 | 1 | - | 1 | 1 | - |
| **South America** | **13,058** | **15,856** | **15,675** | **2,552** | **3,150** | **3,151** |
| Chile | 7,497 | 9,612 | 8,924 | 1,316 | 1,566 | 1,484 |
| Argentina | 5,560 | 6,244 | 6,751 | 1,235 | 1,584 | 1,667 |
| Peru | 1 | - | - | 1 | - | - |

| | Quantity | | | Value | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| Asia | 24,793 | 12,943 | 28,575 | 3,327 | 3,088 | 4,061 |
| Syria | 6,636 | 4,867 | 6,811 | 309 | 226 | 261 |
| Turkey | 6,415 | 5,012 | 6,679 | 753 | 484 | 710 |
| Cyprus | 5,364 | 4,708 | 7,518 | 965 | 974 | 1,543 |
| Afghanistan | 1,321 | 1,871 | 357 | 202 | 286 | 68 |
| Lebanon | 1,279 | 1,551 | 2,538 | 123 | 156 | 259 |
| China (Mainland) | 1,100 | 1,500 | 1,900 | 466 | 510 | 740 |
| Jordon | 776 | 556 | 842 | 81 | 45 | 70 |
| Israel | 407 | 483 | 511 | 133 | 175 | 164 |
| Malaysia | 283 | 200 | 195 | 136 | 98 | 102 |
| Hong Kong | 87 | 57 | 56 | 42 | 9 | 11 |
| Japan | 13 | 25 | 29 | 4 | 9 | 13 |
| Pakistan | 6 | 6 | - | 1 | 3 | - |
| India | 4 | 7 | 35 | 2 | 3 | 9 |
| Aden | 1 | - | - | - | - | - |
| Other Countries | 100 | - | - | 10 | - | - |
| Africa | 29,652 | 32,791 | 30,664 | 10,131 | 12,640 | 12,781 |
| South Africa | 27,639 | 30,331 | 28,130 | 9,545 | 11,761 | 11,868 |
| Algeria | 1,572 | 2,106 | - | 484 | 805 | - |
| Morocco | 255 | 174 | 193 | 55 | 35 | 37 |
| UAR | 150 | 58 | 94 | 33 | 12 | 24 |
| Tunisia | 19 | 74 | 24 | 3 | 10 | 4 |
| Northern Rodesia | 8 | - | - | 3 | - | - |
| Kenya | 6 | 3 | - | 5 | 3 | - |
| Mauritius | 2 | 5 | 12 | 1 | 2 | 6 |
| Uganda | 1 | 1 | 2 | 1 | 1 | 1 |
| Southern Rodesia | - | 37 | 98 | - | 11 | 33 |
| Oceania | 992 | 1,408 | 1,920 | 430 | 508 | 487 |
| Australia | 992 | 1,408 | 1,920 | 430 | 508 | 487 |
| TOTAL | 730,634 | 732,551 | 940,126 | 119,294 | 117,529 | 148,926 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure E-3

## WORLD IMPORTS OF GRAPES DURING 1963-65

Quantity: Tonnes
Value: Thousand Dollars

| | Quantity | | | Value | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| Europe | 471,601 | 516,366 | 626,652 | 103,853 | 118,100 | 138,542 |
| West Germany | 191,582 | 234,062 | 258,430 | 34,200 | 44,164 | 49,935 |
| USSR | 107,900 | 58,000 | 135,600 | 20,619 | 11,104 | 25,738 |
| UK | 50,000 | 59,753 | 63,456 | 21,342 | 24,700 | 24,959 |
| Czechoslovakia | 40,882 | 23,231 | 55,243 | 7,134 | 4,049 | 9,706 |
| East Germany | 37,800 | 34,300 | 42,000 | 6,589 | 5,975 | 7,380 |
| Switzerland | 27,466 | 31,795 | 35,809 | 4,895 | 5,904 | 6,532 |
| Austria | 26,204 | 25,901 | 29,452 | 3,663 | 3,610 | 3,939 |
| Polland | 25,334 | 20,135 | 39,639 | 3,998 | 3,167 | 6,803 |
| Sweden | 20,119 | 22,984 | 27,118 | 6,549 | 7,398 | 8,171 |
| Belgium/Luxemburg | 10,952 | 14,682 | 18,494 | 2,892 | 3,683 | 4,265 |
| Finland | 10,513 | 8,105 | 9,553 | 3,093 | 2,452 | 2,892 |
| Norway | 10,466 | 12,392 | 15,603 | 3,521 | 4,105 | 4,846 |
| Denmark | 7,324 | 9,884 | 10,404 | 2,249 | 2,853 | 2,896 |
| France | 6,399 | 9,087 | 5,895 | 1,772 | 2,993 | 1,845 |
| Holland | 4,614 | 7,454 | 10,932 | 1,076 | 1,895 | 2,696 |
| Ireland | 1,240 | 1,439 | 1,663 | 606 | 704 | 763 |
| Italy | 547 | 928 | 2,174 | 216 | 355 | 706 |
| Iceland | 147 | 223 | 329 | 52 | 87 | 124 |
| North and Central America | 99,418 | 116,117 | 137,755 | 18,803 | 22,414 | 23,109 |
| Canada | 87,056 | 95,871 | 119,287 | 15,080 | 17,024 | 18,549 |
| U.S.A. | 10,932 | 18,564 | 14,972 | 3,167 | 4,754 | 3,454 |
| Panama | 368 | 493 | 487 | 122 | 163 | 149 |
| Antille | 257 | 218 | 229 | 94 | 82 | 73 |
| Dominican Republic | 247 | 252 | 295 | 103 | 89 | 102 |
| Trinidad | 188 | 268 | - | 85 | 112 | - |
| Jamaica | 145 | 182 | - | 67 | 82 | - |
| Panama Cz | 48 | 17 | - | 14 | 3 | - |

| | Quantity | | | Value | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| Honduras | 37 | 49 | 55 | 25 | 26 | 27 |
| Barbados | 18 | 15 | 25 | 11 | 9 | 14 |
| Antigua | 11 | 12 | 10 | 5 | 8 | 5 |
| Greenland | 6 | 20 | 63 | - 4 | 14 | 43 |
| Mexico | 5 | 1 | - | 1 | 1 | - |
| Guadeloupe | - | 55 | 213 | - | 22 | 110 |
| Cuba | - | - | 649 | - | - | 190 |
| South America | 7,340 | 7,095 | 7,968 | 2,750 | 2,034 | 2,319 |
| Venezuela | 5,686 | 6,173 | 6,532 | 2,189 | 1,674 | 1,817 |
| Brazil | 1,275 | 498 | 963 | 387 | 169 | 309 |
| Ecuador | 204 | 221 | 235 | 93 | 110 | 108 |
| Colombia | 63 | 33 | - | 38 | 18 | - |
| Bolivia | 35 | 24 | 74 | 2 | 4 | 22 |
| Paraguay | 14 | - | - | - 4 | - | - |
| French Guiana | 3 | 19 | 11 | 2 | 10 | 6 |
| Peru | - | 67 | 92 | - | 14 | 20 |
| Guyana | - | - | 61 | - | - | 37 |
| Asia | 23,979 | 21,147 | 48,666 | 5,867 | 5,232 | 12,421 |
| Pakistan | 4,170 | - | 27,184 | 1,258 | - | 7,682 |
| Hong Kong | 4,114 | 4,160 | 5,102 | 1,378 | 1,332 | 1,623 |
| Jordan | 3,540 | 2,020 | 2,302 | 309 | 175 | 253 |
| Malaysia | 3,253 | 3,017 | 2,356 | 1,446 | 1,418 | 1,197 |
| Lebanon | 3,141 | 2,828 | 4,866 | 237 | 200 | 298 |
| Phillippines | 1,909 | 2,593 | 2,440 | 306 | 515 | 623 |
| India | 1,274 | 1,877 | 357 | 497 | 541 | 105 |
| Saudi Arabia | 864 | 802 | 1,559 | 70 | 143 | 226 |
| Southern Arabia & Aden | 270 | 215 | 641 | 100 | 40 | 109 |
| Syria | 260 | 383 | 563 | 33 | 48 | 62 |
| Vietnam Republic | 170 | 108 | 157 | 79 | 49 | 73 |
| Sarawak | 73 | - | - | 43 | - | - |
| Sabah | 41 | - | - | 25 | - | - |
| Borneo | 19 | 19 | - | 14 | 15 | - |
| Japan | 19 | 5 | - | 2 | - | - |

| | Quantity | | | Value | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| **Africa** | **2,688** | **2,251** | **2,405** | **846** | **754** | **810** |
| Rhod Nyas | 1,325 | - | - | 215 | - | - |
| Senegal | 375 | 319 | 320 | 146 | 129 | 125 |
| Kenya | 223 | 114 | 91 | 92 | 57 | 49 |
| Mauritius | 111 | 119 | 110 | 51 | 51 | 58 |
| Sudan | 92 | 150 | 163 | 55 | 72 | 75 |
| Congo Brazeville | 70 | 85 | 40 | 36 | 38 | 21 |
| Cameroon | 43 | 36 | 35 | 23 | 17 | 19 |
| Liberia | 34 | - | - | 21 | - | - |
| Uganda | 31 | 27 | 37 | 15 | 14 | 21 |
| Congo Lepoldville | 26 | 45 | 93 | 7 | 9 | 19 |
| Tanganyik | 25 | 24 | 40 | 14 | 14 | 23 |
| Gabon | 21 | 8 | 10 | 17 | 11 | 11 |
| Libya | 20 | 50 | 2 | 4 | 10 | 1 |
| Portugese Guines | 20 | - | - | 8 | - | - |
| Reunion | 19 | 34 | 26 | 13 | 25 | 15 |
| Ghana | 17 | 11 | 8 | 13 | 8 | 6 |
| Morocco | 10 | - | - | 3 | - | - |
| Chad | 5 | 9 | 8 | 7 | 11 | 10 |
| Madagascar | 5 | 5 | 5 | 4 | 4 | 4 |
| Republic of Central Africa | 4 | 6 | 6 | 3 | 3 | 8 |
| Togo | 4 | 4 | 5 | 3 | 3 | 4 |
| Dehomey | 4 | 2 | - | 3 | 1 | - |
| Mali | 3 | - | - | 2 | - | - |
| Nigeria | 1 | 4 | 8 | 1 | 4 | 8 |
| Southern Rhodesia | - | 756 | 877 | - | 133 | 174 |
| Zambia | - | 207 | 276 | - | 43 | 55 |
| Malawai | - | 33 | - | - | 6 | - |

| | Quantity | | | Value | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| Oceanis | 381 | 420 | 113 | 186 | 211 | 44 |
| New Zealand | 279 | 317 | - | 143 | 171 | - |
| Polinesia Province | 90 | - | - | 38 | - | - |
| Guinea | 6 | 8 | 15 | 3 | 3 | 6 |
| Pepua | 6 | 5 | 8 | 2 | 2 | 3 |
| TOTAL | 713,307 | 721,396 | 959,159 | 152,924 | 159,849 | 202,983 |

Source: Trade Year Book, Vo. 20
FAO, Rome, 1966.

Annexure E-4

## PRODUCTION OF TABLE GRAPES BY VARIETIES IN ITALY

(Thousand Tonnes)

| | Qty | % | Qty | % | Qty | % |
|---|---|---|---|---|---|---|
| Table grape variety (Big) | 596 | 74.8 | 651 | 78.6 | 672 | 78.3 |
| Regina o Mennavacca B | 428 | 53.7 | 442 | 53.4 | 480 | 55.9 |
| Italia o Ideal | 66 | 8.3 | 68 | 8.2 | 76 | 8.9 |
| Baresana o Turchesca | 26 | 3.3 | 34 | 4.1 | 30 | 3.4 |
| Cardinal | 26 | 3.3 | 32 | 3.9 | 35 | 4.0 |
| Zibibbo o Moscato d'Abssandria | 19 | 2.4 | 42 | 5.0 | 20 | 2.3 |
| Regina nera o Mennavacca N | 5 | 0.7 | 8 | 1.0 | 8 | 0.9 |
| Alfanso Lavallie | 3 | 0.4 | 3 | 0.4 | 5 | 0.6 |
| Olivella Vibonese | 1 | 0.2 | 1 | 0.1 | 1 | 0.1 |
| Perlona | 0.3 | - | 0.4 | 0.1 | 0.4 | 0.1 |
| Others | 20 | 2.5 | 19 | 2.4 | 18 | 2.1 |
| Table grape variety (Small) | 201 | 25.2 | 177 | 21.4 | 186 | 21.7 |
| Regina dei vignete | 66 | 8.3 | 40 | 4.8 | 44 | 5.1 |
| Panse precoce | 42 | 5.3 | 45 | 5.4 | 46 | 5.3 |
| Primus | 22 | 2.8 | 23 | 2.8 | 24 | 2.8 |
| Chasselas (Dore, Muscat) | 16 | 1.9 | 13 | 1.5 | 14 | 1.7 |
| Moscato di Terracina | 12 | 1.5 | 13 | 1.6 | 13 | 1.5 |
| Colombana bianca o verdea | 8 | 1.0 | 7 | 0.9 | 8 | 100 |

| | 1964 | | 1965 | | 1966 | |
|---|---|---|---|---|---|---|
| | Qty | % | Qty | % | Qty | % |
| Catalanesca | 4 | 0.5 | 5 | 0.6 | 5 | 0.6 |
| Moscato d' Amburgo | 3 | 0.4 | 3 | 0.3 | 4 | 0.5 |
| Pizzutello | 3 | 0.4 | 3 | 0.4 | 4 | 0.5 |
| Moscato d 'Adda | 2 | 0.2 | 1 | 0.2 | 2 | 0.2 |
| Delizia di Vapro | 2 | 0.3 | 2 | 0.3 | 2 | 0.2 |
| Prunesta | 2 | 0.2 | 2 | 0.2 | 2 | 0.2 |
| Servanto St. Jeaunet | 1 | 0.1 | 1 | 0.1 | 1 | 0,1 |
| Ciminuita | 1 | 0.1 | 1 | 0.2 | 2 | 0.2 |
| Perla di Csaba | 1 | 0.1 | 1 | 0.1 | 1 | 0.1 |
| Others | 16 | 2.1 | 16 | 2.0 | 14 | 1.7 |
| TOTAL | 797 | 100.0 | 828 | 100.0 | 858 | 100.0 |

Source: Institute Per le Ricerche
E le Informazioni Di Mercato
E la Valorizzazione
Della Produzione Agricola, Roma.

Annexure E-5

## A. IMPORTS OF GRAPES INTO UK DURING SEPTEMBER 1965 - FEBRUARY 1966

Tonnes

| Exporting Countries | September | October | November | December | January | February |
|---|---|---|---|---|---|---|
| France | 993 | 179 | 54 | - | - | - |
| Spain | 3,427 | 7,115 | 8,112 | 7,156 | 2,989 | 855 |
| Italy | 2,403 | 314 | - | - | - | - |
| Greece | 693 | 624 | - | - | - | - |
| Turkey | 2,171 | - | - | - | - | - |
| Portugal | 56 | - | - | - | - | - |
| Cyprus | 496 | 119 | - | - | - | - |
| Belgium | - | - | - | - | 103 | - |
| Holland | - | - | - | - | 27 | - |
| USA | - | - | 85 | 516 | 1,251 | 659 |
| South Africa | - | - | - | - | 920 | 3,262 |
| Others | 55 | 330 | 68 | 51 | 2 | 21 |
| Total | 10,294 | 8,681 | 8,319 | 7,723 | 5,292 | 4,797 |

## B. IMPORTS OF GRAPES INTO WEST GERMANY DURING DIFFERENT MONTHS IN 1966-67

| Exporting Countries | 1966 | | | 1967 | | | |
|---|---|---|---|---|---|---|---|
| | April | May | June | December | January | February | March |
| Spain | - | - | 8 | 2,363 | 333 | 24 | - |
| France | - | - | - | 1 | - | - | - |
| Greece | - | - | - | 9 | - | - | - |
| Bulgaria | - | - | - | 123 | - | - | - |
| South Africa | 1,385 | 1,785 | 986 | - | - | 82 | 681 |
| Argentina | 234 | 281 | 170 | - | - | - | - |
| Turkey | - | - | - | 16 | - | - | - |
| Belgium-Luxemburg | - | - | 15 | 122 | 31 | 7 | - |

Contd...

| Exporting Countries | 1966 April | 1966 May | 1966 June | 1967 December | 1967 January | 1967 February | 1967 March |
|---|---|---|---|---|---|---|---|
| Netherlands | Neg | Neg | 3 | 113 | 115 | 16 | 3 |
| Israel | - | - | - | - | - | - | - |
| Chile | - | - | - | - | - | - | - |
| USA | - | - | - | 41 | 62 | 194 | 129 |
| Others | 9 | 2 | 9 | - | 8 | 17 | 7 |
| Total | 1,628 | 2,066 | 1,191 | 2,788 | 549 | 380 | 820 |

Source: Die Agrommarket, 1966-67, Wisbadin.

Annexure F-1

## WORLD PRODUCTION OF APPLES

(Thousand Tonnes)

| Country | 1948-52 | 1965 | 1966 |
|---|---|---|---|
| Austria | 227[c] | 190 | 270 |
| | 112[b] | 32 | 97 |
| Belgium | 278 | 165 | 205 |
| Bulgaria | 176 | 299 | 344 |
| Czechoslovakia | 206 | 90 | 349 |
| Denmark | 212 | 170 | Neg |
| France | 380[a] | 1,214 | 1,378 |
| | 371[b,c] | 3,376 | 1,717 |
| Eastern Germany | 200 | 219 | 229 |
| Federal Republic of Germany | 1,166 | 1,182 | 1,451 |
| Greece | 31 | 165 | 153 |
| Hungary | 158 | 379 | 396 |
| Italy | 741 | 2,185 | 2,584 |
| Netherlands | 285 | 404 | 343 |
| Norway | 40 | 43 | 41 |
| Poland | 138 | 200 | 794 |
| Romania | 67 | 217 | 234 |
| Spain | 139[a] | 328 | 362 |
| | 54[b] | 122 | Neg |
| Sweden | 162 | 187 | 184 |
| Switzerland | 240[b] | 255 | 370 |
| | 232[a] | | |
| United Kingdom | 495[b] | 563 | 452 |
| | 102[a] | 52 | 27 |

Contd.

| Country | 1948-52 | 1965 | 1966 |
|---|---|---|---|
| Yugoslavia | 170 | 135 | 214 |
| Canada | 300 | 455 | 430 |
| Mexico | 49 | 125 | 126 |
| United States | 2,409 | 2,940 | 2,751 |
| Argentina | 195 | 544 | 414 |
| Japan | 382 | 1,132 | 1,059 |
| Korea | 48 | 167 | 174 |
| Lebanon | 14 | 115 | 104 |
| Turkey | 102 | 362 | 440 |
| South Africa | 39 | 142 | 193 |
| Australia | 199 | 360 | 377 |
| New Zealand | 48 | 92 | 108 |
| World Total (Including others) | 13,506 | 19,337 | 19,352 |

a) Dessert and cooking apples

b) Apples for cider apples

c) Data for apples are calculated at 95% of the total production of apples

Source: FAO Monthly Bulletin of Agricultural Economics and Statistics, January, 1968.

Annexure F-2(i)

## BREAKDOWN OF FRENCH DESSERT APPLE PRODUCTION BY VARIETY IN 1963, 1964, 1965 AND PROJECTIONS FOR 1970

(In Percentage)

| Varieties | 1963 | 1964 | 1965 | 1970 (Projections) |
|---|---|---|---|---|
| American Varieties: | | | | |
| Golden | 36.0 | 42.0 | 41.0 | 50.0 |
| Red | 12.0 | 12.0 | 10.0 | 18.0 |
| Canada and Boskoop | 9.0 | 6.5 | 5.0 | 8.0 |
| Reinette du Mans | 4.0 | 3.0 | 3.0 | 3.5 |
| Reine des Reinettes and Cox's Orange pipin | 5.0 | 5.5 | 4.0 | 3.0 |
| Reinette Clochard | 3.0 | 3.0 | 3.0 | 2.5 |
| Other Varieties | 31.0 | 28.0 | 34.0 | 15.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Total Production (In thousand tonnes) | 987 | 1,039 | 1,214 | 1,900 |

Source: OECD Working Group on Fruits and Vegetables, France, Belgium and Luxemburg, 1967.

Annexure F-2 (ii)

## BREAKDOWN OF ITALIAN DESSERT APPLE PRODUCTION BY VARIETY IN 1963 AND 1964

Quantity : Thousand Tonnes

| Variety | 1963 | | 1964 | | Percentage Change 1964/1963 |
|---|---|---|---|---|---|
| | Quantity | % | Quantity | % | |
| Imperatore and Morganduft | 353.5 | 15.1 | 365.7 | 15.4 | + 3.4 |
| Stark Delicious | 272.4 | 11.6 | 309.2 | 13.0 | + 13.5 |
| Abbondanza and Belfort | 256.5 | 11.0 | 247.9 | 10.4 | - 3.5 |
| Golden Delicious | 201.5 | 8.6 | 241.9 | 10.2 | + 20.1 |
| Delicious | 151.1 | 6.5 | 170.3 | 7.2 | + 12.7 |
| Annurca | 98.1 | 4.2 | 92.1 | 3.9 | - 6.1 |
| Rome Beauty | 82.4 | 3.5 | 91.8 | 3.9 | + 11.4 |
| Reinette du Canada | 81.2 | 3.5 | 89.3 | 3.7 | + 9.9 |
| Starking | 67.2 | 2.9 | 76.6 | 3.2 | + 14.0 |
| Richared | 64.1 | 2.7 | 66.9 | 2.8 | + 4.4 |
| Reinette de Champagne | 63-5 | 2.7 | 41.5 | 1.7 | - 34.0 |
| Jonathan | 48.9 | 2.1 | 46.3 | 1.9 | - 5.2 |
| Rose de Caldaro | 44.1 | 2.0 | 48.7 | 2.0 | + 10.5 |
| Stayman Winesap | 43.8 | 1.9 | 56.5 | 2.4 | + 28.9 |
| Limoncella | 41.5 | 1.8 | 31.1 | 1.3 | - 25.1 |
| Sargente | 34.9 | 1.5 | 29.7 | 1.2 | - 14.9 |
| Democrate | 34.7 | 1.5 | 29.9 | 1.3 | - 14.1 |
| Gravenstein | 33.0 | 1.4 | 31.6 | 1.3 | - 4.2 |
| Commerce | 26.0 | 1.1 | 24.9 | 1.0 | - 4.1 |
| Rambour | 21.4 | 0.9 | 18.1 | 0.8 | - 15.4 |
| Lavina | 18.6 | 0.6 | 17.9 | 0.7 | - 3.8 |
| Rosa of Mantua | 18.5 | 0.8 | 15.0 | 0.6 | - 19.0 |

| Variety | 1963 | | 1964 | | Percentage Charge 1964/1963 |
|---|---|---|---|---|---|
| | Quantity | % | Quantity | % | |
| Campanino | 17.3 | 0.7 | 15.6 | 0.7 | - 9.5 |
| Golden Pearmain | 14.7 | 0.6 | 13.8 | 0.6 | - 6.1 |
| Decio | 11.4 | 0.5 | 8.6 | 0.4 | - 24.8 |
| Piana | 10,3 | 0.5 | 6.9 | 0.3 | - 33.3 |
| Rosa of Marche | 10.3 | 0.4 | 7.1 | 0.3 | - 31.3 |
| Roman Rosa | 6.5 | 0.3 | 6.4 | 0.3 | - 1.7 |
| Durello | 2.4 | 0.1 | 1.7 | 0.1 | - 29.3 |
| Other widely grown varieties | 60.9 | 2.6 | 80.2 | 3.4 | + 31.7 |
| Local unspecified varieties | 145.7 | 6.2 | 98.2 | 4.0 | - 32.6 |
| Total | 2,336.4 | 100.0 | 2,381.4 | 100.0 | + 1.9 |

Source: Fruit and Vegetable crop prospects, Bulletin No.58, March 1965.

Annexure F-3

## WORLD EXPORTS OF APPLES DURING 1963-65

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1963 Quantity | 1963 Value | 1964 Quantity | 1964 Value | 1965 Quantity | 1965 Value |
|---|---|---|---|---|---|---|
| Italy | 406 | 47,562 | 451 | 53,627 | 486 | 70,957 |
| Argentina | 245 | 32,638 | 134 | 19,146 | 253 | 29,475 |
| Hungary | 140 | 18,165 | 124 | 16,016 | 12 | 16,934 |
| Australia | 134 | 26,086 | 156 | 26,920 | 134 | 23,509 |
| South Africa | 67 | 14,123 | 87 | 17,255 | 85 | 17,170 |
| U.S.A. | 67 | 13,690 | 98 | 19,084 | 114 | 22,523 |
| Canada | 66 | 11,108 | 66 | 10,616 | 59 | 10,116 |
| Lebanon | 44 | 4,112 | 64 | 5,480 | 80 | 6,494 |
| Bulgaria | 42 | 5,838 | 64 | 6,776 | 45 | 5,341 |
| France | 35 | 6,352 | 45 | 7,873 | 213 | 26,286 |
| New Zealand | 31 | 6,014 | 36 | 6,853 | 43 | 8,356 |
| Netherlands | 29 | 4,967 | 113 | 10,091 | 91 | 13,095 |
| Belgium-Luxemburg | 15 | 1,741 | 57 | 3,861 | 31 | 3,183 |
| Japan | 14 | 2,208 | 15 | 2,261 | 20 | 2,824 |
| Denmark | 11 | 1,529 | 11 | 1,674 | 10 | 1,891 |
| Greece | 9 | 784 | 8 | 681 | 23 | 2,179 |
| Poland | 8 | 540 | 43 | 2,733 | 2 | 216 |
| Other Countries | 153 | 26,776 | 149 | 28,287 | 285 | 32,016 |
| Total | 1,516 | 224,253 | 1,721 | 239,234 | 1,986 | 292,565 |

Source: Trade Year Book, F.A.O., Rome, 1966.

Annexure F-4

## WORLD IMPORTS OF APPLES DURING 1961-65

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1961 | | 1962 | | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| West Germany | 565 | 71,517 | 554 | 84,747 | 388 | 62,454 | 529 | 73,647 | 667 | 12,040 |
| UK | 230 | 54,217 | 239 | 65,935 | 209 | 54,443 | 239 | 62,478 | 247 | 69,938 |
| USSR | 108 | 15,289 | 126 | 18,431 | 131 | 18,719 | 159 | 22,221 | 132 | 19,014 |
| France | 96 | 14,487 | 159 | 25,585 | 80 | 13,678 | 118 | 16,139 | 116 | 20,735 |
| Belgium-Luxemburg | 47 | 8,071 | 47 | 6,862 | 36 | 5,704 | 42 | 5,898 | 51 | 9,395 |
| Brazil | 43 | 5,637 | 50 | 8,714 | 64 | 12,899 | 39 | 9,107 | 60 | 10,346 |
| Czechoslovakia | 41 | 5,218 | 30 | 4,295 | 55 | 6,270 | 51 | 6,250 | 62 | 7,340 |
| Switzerlands | 40 | 6,191 | 19 | 3,698 | 8 | 1,623 | 14 | 3,007 | 49 | 8,222 |
| Sweden | 38 | 9,097 | 46 | 11,922 | 51 | 12,606 | 45 | 11,408 | 46 | 11,923 |
| Finland | 31 | 7,177 | 35 | 8,571 | 41 | 9,398 | 36 | 8,264 | 35 | 8,375 |
| Canada | 26 | 4,193 | 23 | 3,491 | 17 | 2,843 | 28 | 3,932 | 29 | 4,284 |
| Netherlands | 24 | 2,908 | 53 | 4,819 | 48 | 5,461 | 19 | 3,114 | 21 | 4,195 |
| Algeria | 20 | 3,762 | 15 | 2,794 | 10 | 1,792 | 2 | 273 | 6 | 1,016 |
| USA | 19 | 3,935 | 26 | 4,584 | 37 | 5,996 | 26 | 4,248 | 16 | 3,077 |
| Hong Kong | 18 | 2,230 | 18 | 2,730 | 25 | 3,888 | 26 | 4,363 | 31 | 5,298 |
| Iraq | 17 | 2,402 | 16 | 1,540 | 17 | 1,569 | 23 | 2,163 | 26 | 2,252 |

Contd....

| Countries | 1961 | | 1962 | | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quntity | Value | Quantity | Value |
| Australia | 15 | 1,974 | 40 | 4,702 | 40 | 4,353 | 33 | 4,221 | 62 | 8,751 |
| Syria | 8 | 944 | 14 | 1,380 | 12 | 1,187 | 12 | 1,324 | 14 | 1,441 |
| Sudan | 1 | 240 | 1 | 366 | 2 | 477 | 2 | 508 | 2 | 543 |
| Other Countries | 142 | 27,798 | 154 | 33,093 | 214 | 40,657 | 249 | 44,203 | 281 | 47,198 |
| Total | 1,529 | 247,287 | 1,665 | 298,259 | 1,485 | 266,017 | 1,692 | 286,768 | 1,953 | 357,635 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure F-5

## WORLD PRODUCTION OF PEACHES

(Thousand Tonnes)

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| U.S.A. | 1,660 | 1,689 | 1,669 |
| Italy | 1,267 | 1,339 | 1,300 |
| France | 456 | 415 | 485 |
| Japan | 199 | 207 | 229 |
| Argentina | 186 | 158 | 238 |
| Spain | 106 | 131 | 153 |
| South Africa | 108 | 121 | 139 |
| Australia | 82 | 89 | 104 |
| Greece | 80 | 94 | 100 |
| Bulgaria | 52 | 96 | 93 |
| Turkey | 63 | 111 | 66 |
| World Total | 4,818 | 5,061 | 5,159 |

Source: Production Year Book, FAO, Rome, 1966.

Annexure F-6

## ITALIAN PRODUCTION OF PEACHES BY VARIETIES DURING 1965 AND 1966

(Thousand Tonnes)

| Variety | 1965 | | 1966 | |
|---|---|---|---|---|
| | Total | in % | Total | in % |
| Hale J.H. | 1,464.8 | 11.3 | 1,593.2 | 11.2 |
| Incroci Morettini | 1,365.1 | 10.5 | 1,354.0 | 9.5 |
| Morettini 1 | 441.2 | 3.4 | 466.9 | 3.3 |
| Morettini 5/14 | 376.8 | 2.9 | 362.9 | 2.5 |
| Altri | 547.1 | 4.2 | 524.2 | 3.7 |
| Amsden | 586.0 | 4.5 | 661.7 | 4.6 |
| Sant'Anna Balducci | 660.4 | 5.1 | 669.3 | 4.7 |
| Fior di Maggio | 518.8 | 4.0 | 466.7 | 3.3 |
| Charles Ingouf | 461.6 | 3.6 | 338.3 | 2.4 |
| Dixired | 737.7 | 5.7 | 940.1 | 6.6 |
| Elbrta | 432.2 | 3.3 | 403.4 | 2.8 |
| Pieri 81 | 526.8 | 4.0 | 612.7 | 4.3 |
| Redhaven | 608.4 | 4.7 | 801.2 | 5.6 |
| Vesuvio o Puteolana | 670.0 | 5.1 | 610.8 | 4.3 |
| Bella di Roma | 217.5 | 1.7 | 209.9 | 1.5 |
| Bella di Cesena | 226.1 | 1.7 | 265.7 | 1.9 |
| Cardinal | 450.8 | 3.5 | 728.4 | 5.1 |
| Piangipane | 192.8 | 1.5 | 211.2 | 1.5 |
| Southland | 229.1 | 1.8 | 292.5 | 2.0 |
| Early Elberta | 100.8 | 0.8 | 78.2 | 0.5 |
| Terzarola | 212.6 | 1.6 | 223.6 | 1.6 |
| Impero | 128.7 | 1.0 | 123.9 | 0.9 |
| Michelini | 130.2 | 1.0 | 132.3 | 0.9 |

Contd.

| Variety | 1965 | | 1966 | |
|---|---|---|---|---|
| | Total | in % | Total | in % |
| Admiral Dewey | 86.2 | 0.7 | 85.7 | 0.6 |
| Velluto di Hollywood | 103.0 | 0.8 | 161.3 | 1.1 |
| Springtime | 159.1 | 1.2 | 235.6 | 1.7 |
| Dixigem | 203.6 | 1.6 | 148.0 | 1.3 |
| Aurora | 111.0 | 0.6 | 105.7 | 0.7 |
| Trionfo | 96.8 | 0.7 | 68.1 | 0.5 |
| Waddel | 61.4 | 0.5 | 50.4 | 0.4 |
| Altre Cultivar | 1,308.3 | 10.0 | 1,526.3 | 10.8 |
| Cultivar locali non specificate | 948.2 | 7.3 | 1,100.0 | 7.7 |
| Total | 12,998.0 | 100.0 | 14,234.0 | 100.0 |

Source: IRVAM, Italy

Annexure F-7

## WORLD PRODUCTION OF PEARS

(Thousand Tonnes)

| Country | 1948-52 | 1965 | 1966 |
|---|---|---|---|
| Austria | 37[c] | 44 | 54 |
| | 137[d] | 93 | 196 |
| Belgium | 166 | 45 | 30 |
| Bulgaria | 54 | 80 | 103 |
| Czechoslovakia | 80 | 31 | 72 |
| Denmark | 26 | 20 | Neg |
| France | 139[c] | 314 | 331 |
| | 178[a,d] | 67 | 90 |
| Eastern Germany | 107[b] | 80 | 133 |
| Federal Republic of Germany | 368 | 278 | 338 |
| Greece | 30 | 45 | 45 |
| Hungary | 53 | 47 | 68 |
| Italy | 328 | 962 | 1,249 |
| Netherlands | 132 | 80 | 116 |
| Poland | 46 | 64 | 185 |
| Portugal | 26 | 55 | Neg |
| Romania | 15 | 54 | 63 |
| Spain | 70 | 169 | 170 |
| Sweden | 30 | 50 | 37 |
| Switzerland | 20[c] | 10 | Neg |
| | 232[d] | | |
| United Kingdom | 35[c] | 71 | 43 |
| Yugoslavia | 69 | 40 | 84 |
| Canada | 24 | 24 | 47 |
| Mexico | 15 | 34 | 34 |

Contd.

| Country | 1948-52 | 1965 | 1966 |
|---|---|---|---|
| United States | 644 | 453 | 679 |
| Argentina | 101 | 87 | 82 |
| Brazil | 27[b] | 48 | 49 |
| Chile | 8 | 13 | Neg |
| Japan | 79 | 361 | 405 |
| Korea | 31 | 40 | 41 |
| Turkey | 75 | 134 | 135 |
| South Africa | 19 | 58 | 83 |
| Australia | 66 | 112 | 153 |
| New Zealand | 9 | 18 | 18 |
| World Total (Including others) | 3,914 | 5,116 | 6,452 |

a) Data for pears are calculated at 95% of the total production of pears for perry

b) 1952

c) Dessert and cooking pears

d) Pears for perry

Source: FAO Monthly Bulletin of Agricultural Economics and Statistics, January 1968.

Annexure G-1

# THE AVOCADO INDUSTRY IN ISRAEL*

## I BACKGROUND

### RECENT PROGRESS

The avocado industry totals 2,500 acres. Two-thirds of these acres are planted to trees not yet in full bearing. Most avocado orchards were planted during the last 10 years, especially between 1958-1963. New plantings are increasing.

A reason for this rapid expansion was that avocados could be grown successfully with bananas as interplants. Approximately one-half of the total acreage is planted in this manner. The climate, soil, and watering conditions are similar for the two crops. Because of this, the cost of establishing an avocado orchard was materially reduced. Bananas were gradually removed over a two to four year period. At this point the avocado trees were established and soon came into bearing.

During the last two years (1965-1966) the rate of expansion has slowed down. To reverse this trend, the Ministry of Agriculture is encouraging growers to plant avocados. As an inducement loans are offered to prospective avocado growers. It is hoped that this stimulus will double the annual acreage increase, which is now about 150 acres per year.

There are now about 30 large avocado orchards of 25 to 50 acres each. The remaining acreage belongs to small-holders of 2 to 5 acres each. In 1965 the industry yield was 2,300 metric tons, or about 5,150,000 pounds. The 1966 yield is estimated at 3,400 metric tons, or 7,600,000 pounds.

### VARIETIES

The varietal composition of the 1966 crop yield was as follows: Ettinger - 42%, Nabal - 20%, Fuerte - 18%, Benik - 8%, Hass - 6%, Anaheim - 6%.

Four varieties predominate in the plantings.

Fuerte, with 36%, is increasing because of new plantings using a higher proportion of this variety. Its picking season is December to February. The main problem is unsatisfactory and inconsistent yields.

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*The Growing of Avocados, Report to the Government of Israel, FAO, Rome, 1967.

Avocados are grown mostly on medium-heavy textured soils (silty loams) which are well drained. Some plantings are on lighter soils and some on soils with too high a clay content to be suitable for avocados. Some soils contain a high percentage of lime and as a result the trees are chlorotic. The soil pH is generally between 7.2 (slightly alkaline) to 8.0 (alkaline).

PLANTINGS AND PRODUCTION TECHNIQUES

Most of the avocado plantings are located in two coastal regions; Western Galilee (North of Acre), and in the Sharon and Shomron (South of the Carmel Range). There are about 400 acres south of Tel-Aviv. Small plantings are found in the Upper Jordan Valley in thermal belts, and near the shore of the Sea of Galilee.

Irrigation is generally done with the use of underhead sprinklers. Approximately 3 acre feet (325,000 gallons or 1,500,000 litres per 1 acre foot) are given annually in about 20 shallow applications every 8 to 14 days depending on the soil type and climatic conditions. In some orchards a heavier amount of water is applied every six weeks in order to wet the entire profile and flush (leach) out the salts.

Most bearing orchards are non-tilled. Weed control with the use of oil or paraquat (Gramoxone) are the usual practices. Recently, the use of Simazine has been increased.

Nitrogenous fertilizers only are used at the rate of 600 lb/acre of ammonium sulfate and applied mostly twice a year. Where iron deficiency (chlorosis) is prevalent, the soil is treated with Chel 138. Leaf analysis to determine nitrogen level in trees has provided a good guide for application of nitrogen. Heavy manure applications to banana plantations where avocados have been inter-set has caused the avocado trees to grow exceedingly fast and large. Also, the deep, fertile soils selected for bananas and avocados result in large avocado trees.

Planting distances are generally 20 x 20 feet for most varieties. In 7 to 9 years after planting the trees begin to crowd each other and a shaded orchard becomes a problem. Some growers prune to keep trees within bounds. Excessive height of upright growing trees, like the Ettinger, is another problem. Training trees in formative and early years of the orchard through pinching back, and bending brances down has helped, but no satisfactory solution has been found to cope with the tall, bearing tree problem.

Ettinger, a locally developed variety, which appears to be a hybrid, that produces early and is a prolific bearer, constitutes 27% of the plantings. A short picking season (October to November) and fruit which cannot be stored on the trees, are the main drawbacks.

Hass, a relatively new variety, represents 17%, mostly in new plantings. An early and heavy bearer, it has a tendency to produce too small fruit. Harvest period is March through May. In low Fuerte crop years, the Hass could be harvested early, because they may be mature enough in January.

Nabal, an alternate bearer and subject to severe wind damage, has 15% of the total industry acreage. Its season for harvest is February to May.

The Benik variety, with only 3% of the acreage, is used primarily as a pollinizer of Nabal.

Anaheim is found in scattered plantings of older trees.

The present recommendation for new plantings is : 40% Fuerte, 40% Hass, and 20% Nabal, with enough Benik trees planted as pollinators.

ROOTSTOCKS

Sources of seed for rootstocks are obtained mostly from Mexican seedlings. Some of them have been indexed to determine whether or not the Sun Blotch Virus disease is present. Recent experience with the West Indian rootstock variety shows it to be more tolerant to high chloride content in irrigation waters, and to high limestone content in soil, than the Mexican and Guatemalan races. Since many prospective areas for avocado orchard development will have to use irrigation water containing 150 to 250 ppm of chlorides, the need for a tolerant rootstock is great.

CLIMATE AND SOILS

The climate in regions where avocados are grown resembles the climate of the coast and coastal valleys of southern California. However, there are generally more heat units with more hours of sunshine in Israel and less incidence of frost. In Israel, sites have to be selected which, by virtue of their topography, are less prone to radiational frosts. Rains, totalling over 20 inches annually, are concentrated in the winter months, November to March.

Avocados are harvested in field boxed ( 40 lbs) and to a limited extent in bins (400 lbs). Because of the sensitivity of the avocado skin to bruising, improved handling methods must be developed.

DISEASES

Avocado diseases are not a serious problem. Sun Blotch virus disease is more prevalent than in California. Avocado Root Rot, a serious fungus (Phytophthora cinnamomi) disease in California, has not been identified to date in Israel. But there is always a possibility that the disease could become established. Verticillium fungus disease sometimes causes considerable damage. Fruit rots, which become noticeable some time after picking, are caused by Colletotrichum, Diplodia, and other such fungi.

MARKETING

Marketing is handled by the Fruit Marketing Board. The board is responsible for packing fruit, for the export and domestic markets, and distribution of fruit. A small percentage of the fruit is packed, shipped and marketed by a private packer-shipper. Fruit is divided into three qualities : (1) grade A fruit for export; (2) grade B for local market; (3) other fruit to the Army (softened) and to Kibbutzim.

Export shipments constitute 50% to 65% of total crop, although some varieties, such as Nabal, have a lower percentage of grade A fruit. A large percent (80%) of the avocados are shipped to France and the United Kingdom. The balance of the fruit reaches markets in Germany, Italy, Scandinavian countries, the Netherlands, Belgium and Switzerland. Consignment is predominantly by ship, though air freight is used when required. Three packing houses, one in the north, one in the central district and one in the south, handle the fruit from the industry's 2,500 acres.

The Fruit Marketing Board also has the responsibility of advertising and promoting the sales of avocados. This involves preparation of advertising materials such as posters, recipe booklets in store display, banners and ads for magazines, newspapers and radio. Promotion abroad is financed up to 50% by the Government.

RESEARCH

Most research work on avocados is conducted by the Division of Subtropical Horticulture (Prof. C. Oppenheimer) and the Food Storage and Technology Department, under Dr. M. Nadel, at the Volcani Institute of Agricultural Research at Beit Dagon and Rehovot. Some of the major research projects are:

(a) Salinity Projects

- Development of tolerant rootstocks
- Vegetative propagation of the rootstocks

(b) Fruit Handling Projects

- Standards - Maturity
- Cold Storage
- Transportation
- Polyethylene wraps
- Irradiation
- Waxes

(c) Fruit Quality Projects

- Partial non-softening of Fuerte fruit
- Control of fungus diseases on fruit

Projects are combined operations of the respective research departments in cooperation with the Extension Service, the Growers Federation and the Fruit Marketing Board.

GENERAL COMMENTS

The future of the avocado industry in Israel appears bright. The world picture concerning the avocado is just beginning to develop. Many markets for avocados are so far untouched. Israel has the land available, suitable soils and an excellent climate. With diligent work, the water may also someday become available, which will serve an expanded acreage. above all, Israel has the men and women who believe in this industry and they alone will make it succeed. Finding solutions to the many problems facing a developing industry will take time, money and effort. But the expert feels that the Israel avocado industry will provide many more tons of fruit for the market in the years ahead, and that avocados will make a substantial contribution to the agricultural economy of the country.

## II PROBLEMS OF THE AVOCADO INDUSTRY

The following list of problems facing the avocado insutry is presented with the full knowledge that many of the problems are recognized by the Government officials, growers and marketing people. In delineating and summarizing the research needed, it is hoped that a further orderly development of a profitable avocado industry may be realized.

### CULTURAL

1. Nursery.

   (a) Certification of rootstock and budwood source trees as free from Sun Blotch virus disease.
   (b) Development of clonal rootstocks
   (c) Develop technique to produce vegetative propagated trees commercially.

2. Selection of the most suitable varieties for the industry.

3. How to handle crowded orchards.

4. Nutrition.

   (a) Avocado trees planted in banana plantations obtain too much nitrogen.
   (b) Hass variety requires more nitrogen than Fuerte.
   (c) Zinc deficiency problems
   (d) Iron deficiency problems
   (e) Development of a sound fertilization program based upon leaf analysis.

5. Irrigation methods and equipment.

   (a) Development of improved methods of irrigation.
   (b) How to irrigate with high saline irrigation water.
   (c) Experiment with the use of low volume discharge sprinkler heads.
   (d) How much water to apply and when - use of tensiometers may help.

6. Maintain individual tree records.

7. Weed control in young orchards.

8. How to increase production per acre.

9. Establish weather stations.

10. Soil selection for avocado orchards.

11. Investigate new areas for planting.

12. Proper pruning of trees, including height control.

HARVESTING

1. Develop mechanical aids in harvesting.

2. Increase picking efficiency, especially on tall trees.

3. Determine the economics, as well as the damage to fruit, of using bulk bins versus field boxes to harvest fruit.

4. Develop criteria to determine ripeness of fruit for picking.

PACKING HOUSE

1. Determine needs of industry for the number and size of packing houses required.

2. Obtain equipment for sizing, stamping of brand name on fruit, carton making, carton closing and storage (refrigeration).

3. Refrigerated facilities needed at packing houses, at the harbour and airport, and possibly in the trucks used between packing house and port and airport.

4. Transportation - study transportation :

   (a) from orchard to packing house
   (b) packing house to local market
   (c) packing house to Haifa port and Lod airport.

5. Use of ethylene gas to ripen fruit.

6. Refrigeration units needed at different stages of fruit handling and storage.

7. Establish optimal carton size.

8. Develop optimal type of package for packing fruit.

9. Improved fruit handling methods for local market needed.

MARKETING

1. Maturity standards needed.

2. Softening of fruit for retail markets.

3. Increase effective advertising and sales promotion in domestic market.

4. Obtain more information on how fruit arrives in European markets.

5. Knowledge needed on how consumers feel about avocados, i.e. if purchases are made by varieties; what fruit condition is desired - softened or hard.

6. Utilization of parthenocarpio fruit ("cukes") in the market.

RESEARCH

1. Improve fruit quality both from the standpoint of variety and condition of fruit when the consumer buys it.

2. Salinity problem needs further study.

3. Develop rootstocks tolerant to chlorides.

4. Develop rootstocks not affected by iron deficiency.

5. Varieties - better quality fruit, better yields and longer marketing season.

6. Partial non-ripening of Fuerte avocados.

7. Fruit handling

   (a) Standards
   (b) Cold storage
   (c) Fruit quality - free from disease
   (d) Polyethylene wraps and waxing
   (e) Controlled atmosphere

8. Clonal rootstocks

9. Effect of cross-pollination on Fuerte yields.

## III RECOMMENDATIONS

### CULTURAL

#### Nursery

Certification Programme for Registration of Seed Source and Budwood Trees: The future of a strong avocado industry in Israel will be based on the health, strength and productiveness of nursery trees grown today. The certification programme should be designed to assure that trees produced by nurserymen for the industry will be as uniform as possible, be good producers and free of Sun Blotch disease.

Special emphasis should be placed upon the problem of eradicating the Sun Blotch virus disease. The most important step to be taken is to increase the cooperation on this certification programme between growers, nurserymen and the Ministry of Agriculture

Development of Clonal Rootstocks: Research personnel of the Experiment Station and commercial nurserymen should cooperate in developing clonal rootstocks for the industry. Factors to look for in development of such a stock are : (a) tolerance to salinity; (b) free of iron deficiency; (c) uniform tree size; (d) high yields; (e) dwarfying effect on scion; (f) adaptability to various type soils.

Commercial Production of Clonal Rootstocks: In conjuction with the development of a clonal rootstock, research personnel and nurserymen should continue to work on the perfection of a method to produce these trees economically and commercially.

Selection of the most suitable Avocado Varieties : Two of the most important factors in the further development and expansion of the industry are : (a) the planting of a variety which will produce heavily and consistently; (b) a variety that can be marketed at home and abroad easily and be well accepted by the consumer.

The Fuerte variety appears to be one that closely fits the desired criteria. The Hass variety, with some intensive advertising and sales promotion could likewise be considered a candidate. These two varieties would be the backbone of the industry.

The Ettinger, Nabal and Benik (used as a pollinator of Nabal) varieties could fill in the periods ahead or behind the marketing of the Fuerte and Hass. There is a need for varieties which could provide fruit for each month of the year and equalize the amount of fruit in the market.

New varieties, imported or locally developed, should be tried, but a few trees only until their production, fruit quality, and market acceptance have been determined.

The Problem of Crowded Orchards: A crowded orchard is caused by two primary factors : excellent growing conditions of soil, climate and water use; and the excessive nitrogen where bananas have been or are being grown, appears to make the avocado trees more vegetative.

The answer to orchards now planted 20 x 20 feet (6 meter square) is to let them grow until shading takes place and production decreases.

Since Fuerte trees do not hit their production stride until the 7th to 15th year, it is not economically sound to remove trees before they have had time to produce. Because the trees grow so large, any new plantings should be made on a different planting distance. For Fuerte trees, for instance, the following distances can be considered.

TABLE 1 PLANTING DISTANCES - FUERTE TREES

| | Planting Distance | No.of Trees/Acre | Period after which orchard is thinned |
|---|---|---|---|
| 1. | 20 ft x 20 ft (6x6 meters) | 108 | 6 - 9 Years |
| 2. | 15 ft x 30 ft (5x10 " ) | 94 | 10 - 15 " |
| 3. | 20 ft x 24 ft (6x8 " ) | 92 | 10 - 15 " |
| 4. | 20 ft x 30 ft (6x10 " ) | 72 | 12 - 15 " |
| 5. | 25 ft x 25 ft (8x8 " ) | 69 | 12 - 15 " |
| 6. | 15 ft x 20 ft (5x6 " ) | 145* | 6 - 9 " |

* (Hass only)

For the Hass variety, because of its early and prolific bearing habits, the suggested planting distance would be No. 6 above. An alternative would No. 2 or No. 3.

Some type of light pruning would be advisable for crowded orchards. Excessive topping, or "opening of windows" in the tree tops, does not seem profitable or feasible.

Fertilization:

(a) The most pressing problem connected with avocado tree fertilization appears to be excessive nitrogen in the soils where avocados are planted with bananas. A research project is needed to determine the nutrient levels, nitrogen primarily, in the soil and leaves where avocado trees are grown on soils with bananas, versus soils where bananas have not been grown. This would provide a guide as to whether or not nitrogen should be applied to the avocado trees. Where the avocado is interplanted with bananas very little can be done about nitrogen applications until the bananas have been removed.

(b) The Hass variety requires more nitrogen than the Fuerte. It appears to need twice the amount applied to Fuerte.

(c) Zinc deficiency can develop gradually in many trees. Being alert to the symptoms of this nutritional disease will pay off in better tree health, larger fruit, better shaped fruit and more production. Use of zinc sprays on the leaves, zinc chelates on the soil, or zinc sulphate on the soil (which are neutral to slightly acid) will correct this deficiency.

(d) Work on the West Indian rootstock, which appears to be well adapted to high limestone soils, should be continued.

(e) Leaf analysis for determining nitrogen requirements of avocado varieties should be instigated. Standards for the different varieties must be obtained.

Irrigation Methods and Equipment

(a) Irrigation is the key to avocado growing.

(b) Research and field trials in methods of water application, schedules, using high saline waters, and testing new equipment will assure good health to the trees resulting in better quality and quantity of fruit.

(c) On heavy clay-type soils, experimentation with low volume sprinkler heads of 0.5 gallon per minute to 1.0

(d) The use of tensiometers to measure available water and help guide the grower to irrigate properly would result in water saved, money saved, and better health to the trees. Proper installation, calibration and frequent checking of instruments will assure good results.

Individual Tree Records: Growers should be more encouraged and taught to maintain individual tree records. A map of the orchard with a square for each tree is necessary. In the square would be recorded the general health of the tree, whether or not Sun Blotch is present, and the yield for a number of years. A rating, in the form of a number, or a colour, or a letter would indicate at a quick glance the best trees in the orchard, the best area, and be able to correlate it with soil and climatic conditions.

This record will be invaluable when it is time to thin the crowded orchard.

Weed Control in Younger Orchards: Weed control should be ecnouraged in young orchards as weeds compete for moisture. At the time of planting a plastic sheet used as a mulch, or woodchips or saw dust, will assist in keeping down the weed growth in basins. If the trunk of the tree is wrapped, the use of a weed oil spray will control most weeds enonomically and reduce the trees' competition for moisture. Weed oil should be used on an area from beyond the drip-line of the tree, extending to a circle twice the radius of the tree. The weeds between the trees can be mowed, or the cultivated soil treated with paraquat or weed oil. As the trees become larger, the shading of the ground by the leaves and branches and the accumulation of leaves on the ground will prevent weed growth.

Increased Production per Acre: Cross-pollination has increased Fuerte production in a California test orchard up to an eight-year average of 40%. Fuertex were interplanted with the Topa Topa variety. Other varieties which have shown a pollinizing effect on the Fuerte variety are : Covocado, Zutano, Hass and Jalna. Growers and research personnel should be alerted to the possibility of increased Fuerte production by

the close planting of another variety which is acting as a pollinizer. The Extention Service could begin a survey during the present season's crop because of the good yield of Fuerte. Girdling individual branches of the Fuerte trees may cause increased production. Early tests this year (1966) indicate this to be true.

Weather Stations: It is important to establish as many small temperature gathering weather stations as possible. It will make possible studies to correlate weather conditions with fruit quality and also to obtain weather data in areas suitable for avocados, but not yet planted.

HARVESTING

Fruit Handling: Improved methods of fruit handling are needed if the fruit is to reach European and local markets in good condition. Mechanical aids to harvesting must be developed to increase amount of fruit picked, as well as ruduce fruit damage due to poor handling methods, and the handling of the fruit too much. Just because the fruit is hard at time of harvest does not mean it can take abuse.

Harvesting Fruit from Tall Trees: Increased efficiency in picking exceptionally tall trees is required if the grower is to reduce his picking costs. Though research a method of training the trees by pruning and bending may be developed. Wider planting distances with upright growing trees would permit more light to enter the orchard and could be a factor in reducing tree height.

Much more research and field trials are needed on his problem.

Bulk Bins versus Field Boxes: Bulk bins for harvesting appear to be the most economical method. However, there are many unanswered questions concerning the use of bins. The main question is "what types and how much bruising occurs when placing 182 to 273 kilos (400 to 600 pounds) of fruit in one container?". Research on this, and the following points, is necessary:

(a) Proper type of bin - size, construction, etc.

(b) Equipment necessary for use with bins - type of truck to transport bins, how are loaded bins brought out of the orchard, unloading machinery at the packing house, dumping equipment.
(c) How to pay pickers, by the hour, by crew pick, by bin, etc.?
(d) An economic study comparing bulk bins with field boxes.

Develop criteria for determining when avocado fruit is ready for picking.

PACKING HOUSE

Site: If the avocado industry expands, there will be a need for a packing house, possibly two or three, designed especially for avocados. This is particularly true as avocados are packed 8 months out of the year. Since a large percentage of the crop sent abroad travels by ship, there is a need for a packing house in the north (Haifa area) and another in the central district (Hedera). For the present, and until the volume of fruit increases substantially, one well-designed packing house could be built and serve as a pilot plant for the future development and building of additional houses to meet the demand of increased tonnage as it occurs. The first house could be built in the central district because of the larger acreage and tonnage in this district.

Design: The original packing house design should be such that, as the need for expansion of an individual house occurs, it would be a simple matter of adding both to the building and to the packing equipment.

The following should be included in the plans; receiving dock; receiving storage space; adequate space around dumping area (both bulk bins and field boxes); conveyor belts designed to reduce rough handling of fruit; long grading belt, with provisions for separating fruit in grades of 1, 2, 3 and culls; brand stamping device; carton marketing facility; carton closing machines; weighing stands on which packer packs fruit; and cold (refrigeration) storage boxes. These are but a few considerations in the design of a good efficient packing house.

Storage Facilities: Refrigerated storage facilities are needed at the packing house, at the airport, in the transportation trucks and at the port.

Transportation: Every aspect of transportation must be looked at carefully. Any economy and any method which reduces fruit bruising must be exploited if a profitable and economic return to the grower is to be realized.

## MARKETING

Marketing is probably the most important segment of the avocado industry. It is up to the marketing people to make the consumer buy the fruit. If the consumer does not but, regardless of the reason, the industry ceasesto be. The industry must base its decisions and practices upon what the consumer wants in a fruit, what variety he prefers, and when he wants it. If the industry does not know who buys its fruit, what the consumer thinks about the fruit, and what condition is preferred (e.g. softened or hard), then an intensive market research programme should be initiated.

Since Israel exports a large percentage (50 to 65%) of its fruit to Europe, transported mostly by ship, it is important to know how fruit arrives in the various markets. A market research project on fruit quality arrivals could be combined with the project recommended above. This could be a cooperative project between the packing house, the marketing board, the inspection service, the research station, the growers' federation and the Ministry of Agriculture. Test shipments prepared at the packing house and shipped through normal channels could be viewed at their destination by a qualified team of avocado people.

The local market should not be neglected. A fruit marketing board member could profitably spend one day per week calling on retail fruit shops - discuss avocados with the owner, telling how to use the fruit, how to best display the avocado, and leave recipe folders for him to give out with each sale.

To sell more acocados, the people must be told about them, how to use them and what the avocado can do for them. This means more advertising and sales promotion. Not just

once, or now and then, but it must be a "steady diet" so the consumer never forgets about the avocado. If the avocado is advertised and promoted well, the results will be increased sales. However, the product placed on the market stand must be as good, or better, than what the consumer saw and read about in the advertisement. The first sale is not completed until the housewife returns to buy her next avocado. Quality pays.

RESEARCH

Since many research projects are now under way, the expert feels a need only to list the subjects, to point out the agreement on the projects and to emphasize the need to continue this work as time, money and personnel permit.

Rootstocks: Standardize rootstocks through selection of known good seed varieties, development of clonal stocks, and develop technique to produce commercial clonal stocks.

Salinity Problem: Investigate all aspects of the salinity problem ; water use, soil types, soil chemistry, rootstook tolerance, irrigation methods, etc.

Cross-Pollination: Search out orchards where Fuertes are planted near, or next to, a different variety to learn if they have an increased crop compared to other Fuerte trees away from other varieties. Introduce to Israel some varieties that have shown pollinizing effects in California. Instigate work on the use of bees in effecting good pollinization.

Fruit Quality: The study of fruit quality is extremely important.

(a) Continue research for high yielding varieties and better quality in general.

(b) Undertake research on the various diseases (Diplodia, Colletotrichum, etc.) affecting the fruit after it ripens. Control of these diseases should begin in the field prior to fruit setting, possibly with a fungicidal spray to kill the organism before fruit set, followed by additional spray during the growing of the fruit.

(c) Experiments to extend the shelf-life of the fruit, such as the use of waxes and polyethylene bags, are necessary for fruit taking the long boat ride to Europe.

Marketing: Cold storage and ripening of avocados is essential for the future development of Israel's avocado industry.

(a) Research in ripening fruit by natural means, or with ethylene gas, is time and money well spent.

(b) More attention should be given to maintaining as good a quality of fruit as possible for the local market.

(c) The possibility of controlled atmosphere storage should be explored.

Fuerte Avocados: Partial non-softening of Fuerte avocados is a problem that must be solved if this variety is to become the No. 1 variety of the industry.

INDUSTRY COMMITTEE

This High Committee of the industry should meet upon receipt of this report. Analysis of the report is important. The long term and short term project should receive priority numbers.

FURTHER VISIT BY EXPERT

Within two years a further visit by the expert may be advisable. Since the industry will be expanding rapidly, a re-evaluation of progress and problems would probably be neneficial.

Annexure C-2

# THE CALIFORNIA AVOCADO INDUSTRY*

California, along with Florida, supplies most of the avocados for United States markets. California currently has close to 24,000 acres of avocados planted in the seven southern countries of San Diego, Ventura, Orange, Los Angeles, Santa Barbara, Riverside and San Bernardino. During the last three seasons (1963/1966), between 40,000 and 50,000 tons of avocados were harvested annually. The 1963-64 crop returned to growers $12 million. The 1964-65 crop, though down 45% in weight from the previous year, returned over $12 million to the growers. The 1965-66 crop of 112,000,000 pounds returned to the California avocado growers a record $15 million.

Avocados are harvested every month of the year in California. The two principal varieties from the standpoint of acreage and shipments are the Fuerte and Hass. The Fuerte, a green-skinned fruit, is marketed during November through June. The Hass, a dark-skinned fruit, is marketed mainly during June through October. A number of other varieties are marke ted in smaller quantities throughout the year. These include the Bacon, Zutano, MacArthur, Rincon, Wurtz and Jalna.

Since the 1961-62 season, California avocado industry has operated under a state marketing order designed to increase the demand for California avocados. Under the order, a comprehensive trade promotion and advertising programme has been financed through grower assessments.

A new process for the commercial freezing of avocados was announced to the industry in 1964. The process, using liquid nitrogen of -320F, allows ripened avocados to be held a year or more. Marketing of this ready-to-serve product will be directed mainly to restaurants, airlines, and other institutional users.

Avocado acreage in California can be divided conveniently into three areas : San Diego Country, the mid-countries and the north countries. The mid-countries include Orange, Los Angeles, Riverside and San Bernardino. The north countries include Ventura and Santa Barbara.

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* The Growing of Avocados, Report to the Government of Israel, FAO, Rome, 1967

San Diego leads all counties in avocado acreage. The greatest acreage increase in this area occurred in the late 1940's and early 1950's. Plantings are principally Fuerte; they supply a large volume of this variety for market. The mid-countries acreage remained stable for a number of years, but turned down in 1961. This area has been most affected by urbanization. The acreage in the northern countries is increasing. Summer varieties, which are predominantly Hass with some acreage of MacArthur and Rincon, make up the bulk of the acreage. Closer tree spacing in this area of high-producing varieties, such as Hass, is resulting in high yield per acre.

Total avocado acreage in California increased from 16,287 acres in 1945 to 23,822 acres in 1962, a 46% increase during the 17-year period. During the late 1940's bearing acreage actually declined from 13,403 to 11,292 acres, which contributed to the favourable supply-and-demand relatinship of that period. During the same time extensive new plantings were made under the stimulus of favourable returns, and non-bearing acreage reached a peak in 1952. Larger crops, with the exception of the 1964-65 crop, have been harvested from an expanded acreage. Up until two years ago non-bearing acreage declined, largely as a result of unfavourable returns during the late 1950's and a shortage of nursery trees. The last two to three years have seen increased plantings, again due to favourable returns experienced under an industry-wide advertising and promotional programme.

While the trend in California production is upward, the size of the crop has varied widely from year to year.

CALIFORNIA - AVOCADO PRODUCTION 1960-1966

| YEAR | PRODUCTION | RETURN TO GROWER |
|---|---|---|
| 1960 | 71,000,000 lbs. | 14.7c |
| 1961 | 100,000,000 lbs. | 12.0c |
| 1962 | 80,000,000 lbs. | 13.8c |
| 1963 | 93,600,000 lbs. | 13.0c |
| 1964 | 47,189,000 lbs. | 28.0c (estimate) |
| 1965 | 112,220,000 lbs. | 14.7c |
| 1966 | 118,400,000 lbs.(esti-mate) | 12.5c (estimate) |

The large crops of 1957-58 through 1963-64 reflect the heavy plantings during the late 1940's and early 1950's. A severe heat wave in September 1963 and a abnormally cool spring in 1964 contributed to a light fruit set and a small 1964-65 crop.

Heaviest shipments of avocados from California occur during the winter and spring months when, on the average of the last three years, 73% of the California crop was shipped during December through June.

Avocados are grown in four out of five climatic zones in San Diego County. These zones are : coastal, coastal valleys, intermediate areas, and the inland areas. The only area in the country where avocados are not grown commercially is in the desert. Avocados are grown successfully along the coast in the districts surrounding Carlsbad, Oceanside, Leucadia, Encinitas, and Solana Beach. Even though subdivision has encroached upon agricultural land in the southern part of the country, there are still many avocados grown in Spring Valley, La Mesa, El Cajon, Winter Gardens and some parts of Lakeside. Fallbrook, Escondido, Vista and the Rincon Springs-Pauma Valley areas of the country represent the largest percentage of the plantings.

Soils will vary from a uniform loam soil on the coast, called an Elkhorn sandy loam, to the decomposed granite-type soils of the Vista sandy loam and the Fallbrook fine sandy loams, found around Vista, Escondido and Fallbrook. Soils are generally acid in reaction and range from a depth of six inches to six feet. Some avocado groves have been planted on a Merriam series, which is clay soil, and, as a result, root rot disease has claimed many acres. This disease is not confined to the clay-type soils, however, since in San Diego county the root rot fungus also attacks trees on the lighter textured soils.

Annexure H-1

## WORLD PRODUCTION OF ONIONS DURING 1961-65

Area : Thousand Hectares
Production : Thousand Tonnes
Yield : 100 Kg/Hectare

| | | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|---|
| **France** | | | | | | |
| Unspecified Field Crops | Area | 10 | 10 | 10 | 10F | 9 |
| | Production | 150 | 175 | 185 | 164 | 153 |
| | Yield | 179 | 172 | 181 | 171F | 167 |
| Unspecified Other Crops | Area | 3 | 3 | 3 | 3 | 3 |
| | Production | 60 | 49 | 46 | 45 | 45 |
| | Yield | 189 | 175 | 175 | 169 | 169 |
| **West Germany** | | | | | | |
| Unspecified | Area | 1 | 1 | 1 | 1 | 1 |
| | Production | 23 | 17 | 18 | 15 | 21 |
| | Yield | 189 | 179 | 182 | 165 | 203 |
| **Italy** | | | | | | |
| Unspecified | Area | 22 | 23 | 24 | 23 | 24 |
| | Production | 370 | 396 | 428 | 413 | 440 |
| | Yield | 170 | 173 | 182 | 180 | 183 |
| **Netherlands** | | | | | | |
| Unspecified | Area | 6 | 6 | 7 | 6 | 7 |
| | Production | 215 | 209 | 193 | 218 | 196 |
| | Yield | 362 | 326 | 275 | 355 | 281 |
| **Poland** | | | | | | |
| Dry | Area | 17 | 18 | 23 | 25 | 27 |
| | Production | 208 | 175 | 272 | 340 | 324 |
| | Yield | 122 | 97 | 118 | 136 | 120 |
| **Rumania** | | | | | | |
| Unspecified | Area | 32 | 31 | 38 | 37 | 37 |
| | Production | 153 | 164 | 236 | 248 | 235 |
| | Yield | 48 | 53 | 62 | 67 | 64 |
| **Spain** | | | | | | |
| Green | Area | 3 | 3 | 3 | 3F | 3F |
| | Production | 40 | 40 | 40 | 40F | 40F |
| | Yield | 127 | 120 | 123 | 133 | 133F |

Contd.

| | | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|---|
| Unspecified | Area | 36 | 36 | 36 | 33 | 33 |
| | Production | 327 | 811 | 874 | 772 | 781 |
| | Yield | 231 | 226 | 243 | 235 | 240 |
| UK | | | | | | |
| Unspecified | Area | 2 | 3 | 3 | 3 | 4 |
| | Production | 47 | 56 | 73 | 77 | 84 |
| | Yield | 202 | 198 | 239 | 263 | 238 |
| Canada | | | | | | |
| Dry | Area | 3 | 4 | 4 | 4 | 4 |
| | Production | 70 | 103 | 117 | 98 | 131 |
| | Yield | 218 | 290 | 292 | 252 | 315 |
| USA | | | | | | |
| Dry | Area | 37 | 39 | 38 | 40 | 40 |
| | Production | 1071 | 1168 | 1169 | 1174 | 1279 |
| | Yield | 291 | 302 | 304 | 295 | 323 |
| Argentina | | | | | | |
| Unspecified | Area | 12 | 11 | 12 | 12 | 13 |
| | Production | 194 | 183 | 194 | 207 | 207 |
| | Yield | 168 | 169 | 162 | 170 | 165 |
| Japan | | | | | | |
| Green | Area | 26 | 28 | 29 | 29 | 34 |
| | Production | 410 | 501 | 557 | 537 | 860 |
| | Yield | 157 | 182 | 193 | 185 | 253 |
| Dry | Area | 26 | 29 | 34 | 39 | 34 |
| | Production | 642 | 717 | 620 | 993 | 861 |
| | Yield | 243 | 250 | 183 | 253 | 253 |
| UAR (Egypt) | | | | | | |
| Unspecified | Area | 60F | 60F | 69F | 68F | 69F |
| | Production | 545 | 601 | 695 | 675 | 691 |
| | Yield | 91F | 100F | 101F | 100F | 100F |
| Yugoslavia | | | | | | |
| Dry | Area | 25 | 27 | 32 | 31 | 32 |
| | Production | 137 | 144 | 202 | 205 | 189 |
| | Yield | 55 | 53 | 63 | 66 | 59 |

| | | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|---|
| Brazil | | | | | | |
| Dry | Area | 41 | 43 | 41 | 47 | 47 |
| | Production | 193 | 227 | 195 | 241 | 225 |
| | Yield | 47 | 52 | 48 | 51 | 48 |
| Pakistan | | | | | | |
| Dry | Area | 30F | 36 | 40 | 43 | 47 |
| | Production | 200F | 240 | 270 | 298 | 330 |
| | Yield | 67F | 68 | 68 | 69 | 70 |
| Turkey | | | | | | |
| Unspecified | Area | 56 | 48 | 55 | 60 | 50 |
| | Production | 410 | 430 | 500 | 510 | 450 |
| | Yield | 73 | 90 | 91 | 85 | 90 |
| Chile | | | | | | |
| Unspecified | Area | 5 | 4 | 5 | 5 | 5 |
| | Production | 123 | 111 | 140 | 104 | 140 |
| | Yield | 251 | 271 | 286 | 226 | 270 |
| Total (including Other Countries | | | | | | |
| | Area | 638 | 666 | 712 | 737 | 735 |
| | Production | 7747 | 8271 | 8839 | 9496 | 9598 |
| | Yield | 121 | 124 | 124 | 129 | 131 |

Source: Production Year Book, FAO, Rome, 1966

Annexure H-2

## WORLD EXPORTS OF ONIONS DURING 1963-65

Quantity : Tonnes
Value: Thousand Dollars

| Country | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantiry | Value | Quantity | Value |
| Belgium-Luxemburg | 2,371 | 218 | 5,732 | 417 | 5,424 | 499 |
| Bulgaria | 2,226 | 140 | 53,573 | 3,332 | 3,572 | 277 |
| Czechoslovakia | 9,185 | 576 | 20,007 | 1,246 | 13,122 | 1,018 |
| France | 9,450 | 749 | 7,130 | 605 | 5,627 | 525 |
| Hungary | 41,908 | 2,398 | 35,956 | 2,159 | 30,423 | 1,913 |
| Italy | 61,220 | 5,534 | 32,460 | 2,927 | 41,628 | 3,949 |
| Netherlands | 148,716 | 14,445 | 173,477 | 15,166 | 155,207 | 14,462 |
| Poland | 42,820 | 2,926 | 86,570 | 5,600 | 83,170 | 6,300 |
| Spain | 97,476 | 4,954 | 105,702 | 5,156 | 111,445 | 5,344 |
| Canada | 27,488 | 2,096 | 29,042 | 2,138 | 27,120 | 2,147 |
| Mexico | 15,697 | 908 | 13,923 | 2,016 | 16,339 | 2,451 |
| USA | 59,824 | 5,988 | 39,189 | 4,098 | 55,947 | 5,534 |
| Chile | 32,156 | 1,984 | 19,480 | 1,114 | 34,533 | 1,783 |
| China | 6,000 | 383 | 10,000 | 568 | 13,200 | 840 |
| Hong Kong | 1,998 | 110 | 2,096 | 88 | 3,660 | 190 |
| India | 99,733 | 5,586 | 104,815 | 6,875 | 98,895 | 5,290 |
| Japan | 2,601 | 228 | 5,962 | 265 | 3,614 | 279 |
| Lebanon | 6,938 | 241 | 1,367 | 31 | 5,480 | 251 |
| Syria | 11,457 | 262 | 5,921 | 258 | 15,296 | 649 |
| Thailand | 1,720 | 123 | 634 | 60 | - | - |
| Morocco | 1,380 | 87 | 3,883 | 280 | 4,159 | 227 |
| Nigeria | 1,525 | 100 | 1,133 | 62 | 4,029 | 261 |
| UAR | 154,803 | 11,024 | 188,300 | 13,928 | 170,386 | 14.440 |
| Upper Volta | 1,217 | 152 | 797 | 81 | 1,415 | 289 |
| Australia | 7,210 | 467 | 3,604 | 280 | 2,287 | 199 |
| New Zealand | 2,350 | 211 | 8,244 | 701 | 4,026 | 327 |
| Other countries | 66,594 | 5,204 | 79,370 | 5,684 | 55,929 | 5,123 |
| Total | 915,963 | 67,094 | 1038,367 | 75,135 | 965,933 | 74,567 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure H-3

## WORLD IMPORTS OF ONIONS DURING 1963-65

Quantity : Tonnes
Value: Thousand Dollars

| Country | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Austria | 8,604 | 787 | 5,754 | 600 | 9,620 | 911 |
| Belgium-Luxemburg | 16,477 | 1,640 | 11,015 | 1,224 | 13,254 | 1,538 |
| Czechoslovakia | 12,580 | 1,205 | 2,065 | 168 | 12,782 | 914 |
| Denmark | 6,455 | 648 | 4,696 | 491 | 4,512 | 520 |
| France | 62,485 | 5,147 | 65,758 | 5,222 | 61,703 | 5,945 |
| West Germany | 190,008 | 17,133 | 183,006 | 15,210 | 184,464 | 17,118 |
| East Germany | 13,504 | 1,161 | 20,252 | 1,646 | 4,216 | 301 |
| Ireland | 3,980 | 522 | 4,680 | 500 | 5,323 | 753 |
| Italy | 579 | 32 | 19,698 | 1,530 | 14,368 | 1,197 |
| Netherlands | 7,461 | 798 | 14,802 | 1,329 | 22,649 | 2,049 |
| Sweden | 13,289 | 1,522 | 13,261 | 1,418 | 15,362 | 1,765 |
| Switzerland | 12,622 | 1,816 | 11,836 | 1,611 | 11,799 | 1,651 |
| Canada | 31,735 | 3,191 | 30,201 | 2,967 | 37,288 | 4,034 |
| UK | 234,371 | 21,268 | 203,281 | 18,435 | 217,982 | 22,918 |
| USSR | 22,400 | 1,568 | 97,100 | 6,150 | 51,900 | 3,711 |
| USA | 20,043 | 2,376 | 19,339 | 2,306 | 21,928 | 2,785 |
| Ceylon | 64,988 | 4,536 | 68,828 | 5,419 | 64,659 | 4,342 |
| Hong Kong | 5,810 | 375 | 8,142 | 405 | 8,445 | 444 |
| Jordan | 4,686 | 215 | 5,673 | 335 | 7,202 | 437 |
| Lebanon | 1,566 | 118 | 4,044 | 263 | 3,129 | 216 |
| Saudi Arab | 5,449 | 327 | 11,454 | 641 | 6,302 | 381 |
| Angola | 2,246 | 233 | 2,773 | 298 | 2,648 | 322 |
| Libya | 3,250 | 274 | 5,800 | 434 | 5,364 | 549 |
| Singapore and Malaysia | 37,786 | 3,037 | 39,039 | 3,501 | 38,580 | 3,054 |

| Country | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Sengal | 8,184 | 922 | 9,240 | 938 | 7,552 | 869 |
| Sierre Leone | 4,223 | 461 | 4,838 | 482 | 3,769 | 444 |
| Fiji | 1,793 | 187 | 2,325 | 220 | 2,293 | 295 |
| Ghana | 3,125 | 860 | 1,423 | 531 | 1,212 | 461 |
| Other countries | 97,694 | 9,518 | 99,432 | 9,578 | 111,962 | 11,581 |
| Total | 897,363 | 81,877 | 969,755 | 83,852 | 952,267 | 91,505 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure I-1

## WORLD PRODUCTION OF POTATOES

Area: Thousand Hectares
Production: Thousand tonnes
Yield: Quintal Per Hectare

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| **France** | | | | | |
| Area | 890 | 862 | 844 | 691 | 575 |
| Production | 14,331 | 13,389 | 15,974 | 11,566 | 11,223 |
| Yield | 161 | 155 | 189 | 167 | 195 |
| **East Germany** | | | | | |
| Area | 682 | 742 | 747 | 745 | 725 |
| Production | 8,430 | 13,284 | 12,886 | 12,872 | 12,857 |
| Yield | 124 | 179 | 173 | 173 | 177 |
| **West Germany** | | | | | |
| Area | 976 | 962 | 925 | 851 | 783 |
| Production | 21,504 | 25,091 | 25,800 | 20,612 | 18,088 |
| Yield | 220 | 261 | 279 | 242 | 231 |
| **Netherlands** | | | | | |
| Area | 133 | 130 | 134 | 125 | 124 |
| Production | 3,720 | 3,953 | 3,854 | 4,110 | 3,253 |
| Yield | 280 | 305 | 288 | 330 | 262 |
| **Poland** | | | | | |
| Area | 2,819 | 2,910 | 2,840 | 2,830 | 2,803 |
| Production | 45,203 | 37,817 | 44,868 | 47,860 | 43,263 |
| Yield | 160 | 130 | 158 | 169 | 154 |

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| UK | | | | | |
| Area | 284 | 298 | 311 | 315 | 300 |
| Production | 6,358 | 6,765 | 6.682 | 7,064 | 7,578 |
| Yield | 224 | 227 | 215 | 224 | 253 |
| USSR | | | | | |
| Area | 8,878 | 8,686 | 8,498 | 8,518 | 8,625 |
| Production | 84,310 | 69,677 | 71,834 | 93,642 | 87,976 |
| Yield | 95 | 80 | 85 | 110 | 102 |
| India | | | | | |
| Area | 375 | 365 | 411 | 405 | 431 |
| Production | 2,719 | 2,447 | 3,336 | 2,554 | 3,688 |
| Yield | 73 | 67 | 81 | 63 | 85 |
| Italy | | | | | |
| Area | 379 | 377 | 386 | 356 | 348 |
| Production | 3,832 | 3,561 | 4,384 | 3,823 | 3,550 |
| Yield | 104 | 95 | 114 | 107 | 102 |
| Czechoslovakia | | | | | |
| Area | 513 | 506 | 502 | 491 | 435 |
| Production | 5,331 | 5,002 | 6,506 | 7,656 | 3,678 |
| Yield | 104 | 99 | 130 | 156 | 85 |
| Austria | | | | | |
| Area | 172 | 169 | 161 | 158 | 145 |
| Production | 3,395 | 3,214 | 3,499 | 3,438 | 2,539 |
| Yield | 198 | 191 | 218 | 218 | 176 |
| Spain | | | | | |
| Area | 416 | 409 | 411 | 365 | 368 |
| Production | 4,918 | 4,153 | 5,075 | 4,254 | 4,090 |
| Yield | 118 | 102 | 124 | 117 | 111 |

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| Yugoslavia | | | | | |
| Area | 292 | 301 | 321 | 320 | 320 |
| Production | 2,690 | 2,630 | 3,030 | 2,820 | 2,380 |
| Yield | 92 | 87 | 94 | 88 | 74 |
| Canada | | | | | |
| Area | 125 | 118 | 116 | 115 | 122 |
| Production | 2,012 | 2,127 | 2,088 | 2,175 | 2,118 |
| Yield | 161 | 180 | 180 | 189 | 174 |
| USA | | | | | |
| Area | 605 | 557 | 545 | 524 | 568 |
| Production | 13,317 | 12,097 | 12,325 | 10,859 | 13,144 |
| Yield | 220 | 217 | 226 | 207 | 232 |
| Argentina | | | | | |
| Area | 203 | 143 | 166 | 179 | 204 |
| Production | 2,072 | 1,184 | 1,453 | 1,492 | 2,489 |
| Yield | 102 | 83 | 88 | 84 | 122 |
| Japan | | | | | |
| Area | 217 | 216 | 208 | 220 | 213 |
| Production | 3,846 | 3,678 | 3,409 | 3,914 | 4,056 |
| Yield | 177 | 170 | 164 | 178 | 190 |
| Total (including others) | | | | | |
| Area | 23,891 | 23,782 | 23,819 | 23,590 | 23,569 |
| Production | 281,390 | 264,067 | 284,459 | 297,710 | 284,255 |
| Yield | 117 | 111 | 119 | 126 | 121 |

Source: Production Year Book, FAO, Rome, 1966

Annexure I-2

## WORLD EXPORTS OF POTATOES

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Netherlands | 327.6 | 16,736 | 346.4 | 13,584 | 462.7 | 23,189 |
| Poland | 248.7 | 8,168 | 1,015.3 | 32,531 | 532.8 | 17,225 |
| France | 236.9 | 9,454 | 322.0 | 12,935 | 492.9 | 27,298 |
| Italy | 193.6 | 15,519 | 185.6 | 14,420 | 232.8 | 26,919 |
| USA | 147.8 | 7,207 | 66.7 | 6,008 | 75.6 | 6,776 |
| Belgium-Luxemburg | 146.9 | 7,781 | 136.0 | 6,344 | 274.7 | 13,959 |
| Spain | 130.0 | 8,418 | 122.9 | 8,827 | 120.0 | 7,745 |
| UAR | 83.0 | 5,333 | 61.1 | 3,601 | 44.5 | 2,795 |
| Morocco | 80.8 | 7,964 | 89.1 | 8,160 | 102.9 | 9,777 |
| Canada | 77.1 | 3,164 | 84.9 | 4,083 | 73.6 | 6,510 |
| Cyprus | 69.1 | 5,983 | 96.1 | 6,579 | 93.4 | 6,683 |
| Switzerland | 43.6 | 2,153 | 35.2 | 1,531 | 30.4 | 1,664 |
| Hungary | 42.6 | 1,793 | 38.0 | 1,013 | 30.9 | 1,284 |
| Denmark | 31.5 | 1,907 | 22.8 | 785 | 59.2 | 2,594 |
| India | 17.5 | 1,450 | 0.4 | 52 | 2.0 | 232 |
| Israel | 11.7 | 1,295 | 3.0 | 324 | 8.3 | 803 |
| UK | 6.7 | 28 | 16.1 | 19 | 81.2 | 32 |
| Japan | 4.9 | 383 | 30.8 | 751 | 12.7 | 588 |
| Greece | 3.0 | 247 | 9.6 | 487 | 21.6 | 1,325 |
| Argentina | 2.6 | 167 | 3.3 | 302 | 7.8 | 323 |
| Other Countries | 139.2 | 8,163 | 65.7 | 2,967 | 55.2 | 7,091 |
| Total | 2,044.8 | 113,311 | 2,751.0 | 125,303 | 2,815.2 | 164,812 |

Source: Trade Year Book, FAO, Rome, 1966.

Annexure I-3

## WORLD IMPORTS OF POTATOES

Quantity: Thousand Tonnes
Value : Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| UK | 427.4 | 48,212 | 266.9 | 30,803 | 243.2 | 33,757 |
| West Germany | 233.3 | 11,590 | 495.2 | 22,802 | 721.8 | 43,701 |
| France | 173.3 | 19,783 | 106.5 | 9,332 | 156.3 | 15,932 |
| Italy | 157.6 | 8,120 | 156.0 | 7,772 | 374.8 | 24,146 |
| Czechoslovakia | 144.6 | 6,145 | 500.3 | 20,914 | 374.4 | 16,284 |
| Spain | 140.9 | 9,644 | 81.5 | 4,618 | 346.5 | 19,774 |
| Canada | 88.1 | 4,008 | 60.2 | 5,303 | 64.1 | 6,699 |
| Belgium-Luxemburg | 76.7 | 2,811 | 84.6 | 2,894 | 57.6 | 2,729 |
| Ceylon | 69.5 | 5,476 | 74.7 | 5,347 | 54.6 | 3,761 |
| Argentina | 31.7 | 1,119 | 30.9 | 1,989 | - | - |
| Hungary | 27.8 | 1,180 | 75.1 | 2,493 | 52.9 | 2,085 |
| Iraq | 17.4 | 961 | 20.5 | 1,182 | 24.3 | 1,373 |
| Jordan | 16.0 | 960 | 15.5 | 936 | 16.4 | 1,080 |
| Austria | 15.2 | 1,160 | 18.6 | 1,421 | 75.0 | 4,929 |
| Netherlands | 15.3 | 751 | 14.9 | 733 | 54.3 | 2,835 |
| Morocco | 14.8 | 531 | 13.3 | 690 | 5.3 | 332 |
| Uruguay | 13.5 | 627 | 23.3 | 1,449 | 0.5 | 5 |
| Senegal | 11.0 | 716 | 11.8 | 680 | 10.9 | 687 |
| USA | 9.4 | 457 | 66.5 | 3,189 | 51.5 | 3,102 |
| Switzerland | 6.1 | 711 | 5.2 | 504 | 12.7 | 1,609 |
| Other Countries | 182.0 | 10,719 | 143.9 | 8,346 | 154.1 | 10,988 |
| Total | 1,871.5 | 136,381 | 2,265.4 | 133,397 | 2,851.2 | 195,808 |

Source: Trade Year Book, FAO, Rome, 1966.

Annexure I-4

## WORLD IMPORTS OF SEED POTATOES

Quantity: Thousand Tonnes
Value: Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| France | 70.8 | 5,488 | 59.4 | 4,173 | 61.0 | 5,232 |
| Belgium-Luxemburg | 69.2 | 6,482 | 58.9 | 4,976 | 64.9 | 5,707 |
| Italy | 57.5 | 4,024 | 42.0 | 3,169 | 8.9 | 764 |
| Hungary | 34.7 | 1,921 | 44.2 | 2,432 | 35.8 | 2,012 |
| West Germany | 32.0 | 2,185 | 37.2 | 2,394 | 37.2 | 3,839 |
| Morocco | 25.5 | 1,875 | 27.5 | 1,696 | 31.9 | 2,681 |
| USA | 23.6 | 1,387 | 57.5 | 3,101 | 60.7 | 5,554 |
| Portugal | 20.5 | 1,671 | 24.7 | 1,588 | 22.2 | 1,612 |
| Greece | 18.9 | 1,610 | 15.0 | 958 | 17.9 | 1,594 |
| Uruguay | 17.8 | 1,546 | 16.1 | 1,567 | 8.3 | 768 |
| Spain | 17.2 | 1,475 | 22.0 | 1,864 | 33.5 | 2,997 |
| Czechoslovakia | 13.8 | 1,026 | 9.2 | 553 | 8.6 | 691 |
| UAR | 10.8 | 865 | 18.6 | 1,335 | 12.9 | 990 |
| UK | 10.4 | 670 | 12.6 | 745 | 8.1 | 501 |
| Cyprus | 4.3 | 421 | 11.8 | 832 | 13.3 | 1,229 |
| Argentina | 3.5 | 283 | 18.8 | 1,662 | 0.4 | 32 |
| Tunisia | 1.9 | 148 | 4.0 | 299 | 5.7 | 460 |
| Israel | 0.9 | 66 | 11.0 | 739 | 2.0 | 205 |
| Other Countries | 69.6 | 6,141 | 92.1 | 4,015 | 50.5 | 5,091 |
| Total | 502.9 | 39.284 | 541.5 | 38.098 | 483.8 | 41.959 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure I-5

## WORLD EXPORTS OF SEED POTATOES

Quantity: Thousand Tonnes
Value: Thousand Dollars

| Countries | 1963 | | 1964 | | 1965 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Netherlands | 246.0 | 19,281 | 254.4 | 17,772 | 253.2 | 22,475 |
| Canada | 90.4 | 4,269 | 122.0 | 6,260 | 113.8 | 8,054 |
| Ireland | 45.2 | 2,620 | 52.5 | 2,997 | 33.9 | 2,034 |
| UK | 44.5 | 3,813 | 60.9 | 4,286 | 51.0 | 3,853 |
| France | 37.9 | 1,968 | 54.3 | 2,973 | 69.9 | 4,437 |
| West Germany | 33.0 | 2,993 | 15.9 | 1,285 | 17.6 | 1,737 |
| Poland | 31.7 | 1,730 | 30.5 | 1,551 | 38.0 | 2,313 |
| Denmark | 16.6 | 1,105 | 13.4 | 751 | 19.1 | 1,133 |
| Argentina | 2.3 | 265 | 1.1 | 134 | 1.5 | 74 |
| Japan | 1.4 | 144 | 1.4 | 113 | 1.3 | 115 |
| Other Countries | 7.4 | 607 | 1.8 | 138 | 6.1 | 433 |
| Total | 556.4 | 38,795 | 608.2 | 38,260 | 605.4 | 46.658 |

Source: Trade Year Book, FAO, Rome, 1966

Annexure J-1

## WORLD PRODUCE OF TOMATOES

Area : Thousand hectare
Production : Thousand tonnes
Yield : Hundred kg/hectare

| | | 1961 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| Bulgaria | | | | | |
| | Area | 23 | 24 | 21 | 21 |
| | Production | 726 | 704 | 694 | 775 |
| | Yield | 311 | 295 | 333 | 361 |
| France | | | | | |
| Field Crops | Area | 12 | 14 | 13 | 14 |
| | Production | 290 | 211 | 316 | 372 |
| | Yield | 232 | 150 | 235 | 274 |
| Other Crops | Area | 8 | 7 | 7 | 7 |
| | Production | 241 | 210 | 206 | 216 |
| | Yield | 309 | 302 | 305 | 304 |
| Greece | | | | | |
| | Area | 30 | 28 | 27 | 26 |
| | Production | 368 | 418 | 533 | 548 |
| | Yield | 121 | 149 | 199 | 210 |
| Hungary | | | | | |
| | Area | 14 | 18 | 16 | 16 |
| | Production | 199 | 260 | 261 | 242 |
| | Yield | 138 | 141 | 161 | 152 |
| Italy | | | | | |
| | Area | 127 | 127 | 124 | 127 |
| | Production | 2676 | 2839 | 2991 | 3177 |
| | Yield | 211 | 224 | 241 | 251 |
| Netherlands | | | | | |
| | Area | 3 | 3 | 3 | 3 |
| | Production | 225 | 226 | 292 | 312 |
| | Yield | 807 | 800 | 879 | 901 |

| | 1961 | 1963 | 1964 | 1965 |
|---|---|---|---|---|
| Poland | | | | |
| Area | 19 | 21 | 22 | 19 |
| Production | 200 | 295 | 369 | 188 |
| Yield | 105 | 141 | 168 | 99 |
| Romania | | | | |
| Area | 33 | 39 | 40 | 39 |
| Production | 402 | 463 | 486 | 562 |
| Yield | 120 | 120 | 123 | 143 |
| Spain | | | | |
| Area | 54 | 56 | 56 | 55 |
| Production | 1205 | 1290 | 1406 | 1330 |
| Yield | 222 | 229 | 250 | 244 |
| U.K. | | | | |
| Area | 1 | 1 | 1 | 1 |
| Production | 89 | 77 | 81 | 78 |
| Yield | 812 | 789 | 871 | 877 |
| Yugoslavia | | | | |
| Area | 23 | 25 | 25 | 26 |
| Production | 272 | 293 | 309 | 283 |
| Yield | 120 | 119 | 122 | 108 |
| Canada | | | | |
| Area | 13 | 13 | 14 | 14 |
| Production | 357 | 315 | 351 | 408 |
| Yield | 272 | 251 | 252 | 290 |
| Mexico | | | | |
| Area | 62 | 61 | 62 | 62 |
| Production | 453 | 443 | 456 | 458 |
| Yield | 73 | 73 | 74 | 74 |
| USA | | | | |
| Area | 190 | 165 | 174 | 163 |
| Production | 4810 | 4603 | 5070 | 4923 |
| Yield | 253 | 279 | 291 | 302 |

| | 1961 | 1963 | 1964 | 1965 |
|---|---|---|---|---|
| Argentina | | | | |
| Area | 25 | 18 | 19 | 23 |
| Production | 362 | 300 | 262 | 392 |
| Yield | 147 | 165 | 139 | 173 |
| Brazil | | | | |
| Area | 29 | 36 | 39 | 40 |
| Production | 391 | 496 | 553 | 598 |
| Yield | 133 | 137 | 144 | 151 |
| Japan | | | | |
| Area | 15 | 18 | 19 | 19 |
| Production | 301 | 437 | 533 | 532 |
| Yield | 208 | 248 | 288 | 280 |
| UAR | | | | |
| Area | 61 | 72 | 78 | 80 |
| Production | 869 | 1056 | 1193 | 1242 |
| Yield | 142 | 148 | 152 | 155 |
| World Total (incl. Others) | | | | |
| Area | 937 | 974 | 988 | 981 |
| Production | 16,785 | 17,556 | 19,140 | 19,395 |
| Yield | 179 | 180 | 194 | 198 |

Source: Production Year Book, F.A.O., Rome, 1966

Annexure J-2

## CHARACTERISTICS OF VARIETIES OF TOMATOES COMMONLY GROWN IN EUROPE

| | Crop Duration (days) | Colour | Shape | Size (Diameter mms) | Weight (gms) per fruit | Transport ability | Remarks |
|---|---|---|---|---|---|---|---|
| **Table Varieties** | | | | | | | |
| Early Marmande | 100-110 | Uneven Lively Red | Round and Smooth | 70-80 | 130-150 | Very Sensitive | - |
| Marmande Plate | 100-110 | Uneven Lively Red | Flat and Ribbed | 70-80 | 140-150 | Sensitive | Under this variety, several strains are grouped together which have similar characristics |
| Plate de Chateaurenard | 120-130 | Uneven Red | Flat and Ribbed | 70-80 | 150-200 | Sensitive | Commercial Importance is declining |
| Saint Pierre | 130-140 | Red | Round and Smooth | 70-80 | 150-200 | Very sensitive | - |
| **Processing Varieties** | | | | | | | |
| Roma | 120-130 | Uniform Red | Smooth and Peer Shaped | 50-60 | 60-70 | Very good | Important variety for processing but used for table pruposes also because of its attractive colour |
| San Marzano | 120-130 | Uniform Red | Smooth and Pear Shaped | 50-60 | 50-60 | Very good | Juice is thick and hence suitable for puree & paste. |

Source: La Tomato Dossier, Centre Technique Economique Inter Professionnel des Fruits et Legumes, Paris.

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